

SPONGES.

R. CRESSWELL
& CO.



ESTABLISHED
1850.

PLEASE TAKE NOTE—

That—We hold every description of Sponge, and the largest and best assorted stock in the world.

That—We have imported and sold the finest Cuban Sponges for 36 years, and that *no firm extant has any monopoly whatever*, the right of Sponge fishing in Cuban waters being easily obtained by payment of a small fee to the Government.

That—Our Trade Mark, Prices Current, and Form of advertisement are being unscrupulously followed, thereby misleading our regular customers both at home and abroad.

To this your particular attention is requested.

That—Our long-standing and exceptional position on the Fisheries, and the enormous stock we hold of every description of Sponge, enable us to furnish, as everywhere acknowledged, THE VERY BEST VALUE in executing all orders entrusted to us, and, at the same time, with the greatest dispatch and accuracy.

That—We shall be happy to supply our Complete Price List to any inquirer on application.

That—Our Name and Address remain unchanged, and are

R. CRESSWELL & CO.,
32 RED LION SQUARE, LONDON, W.C.,

which please note specially so as to avoid confusion and prejudice to customers' interests.

For full particulars see Illustrated Price List on following pages.

ESTABLISHED 1850.

Telegraphic Address—“CRESSWELL LONDON.”

See four following pages.

ESTABLISHED 1850.

SPONGES.



**R. CRESSWELL & CO.,
SPONGE IMPORTERS & MERCHANTS,
32 RED LION SQUARE, LONDON, W.C.;
And at PIRÆUS and SMYRNA.**

ESTABLISHED 1850.

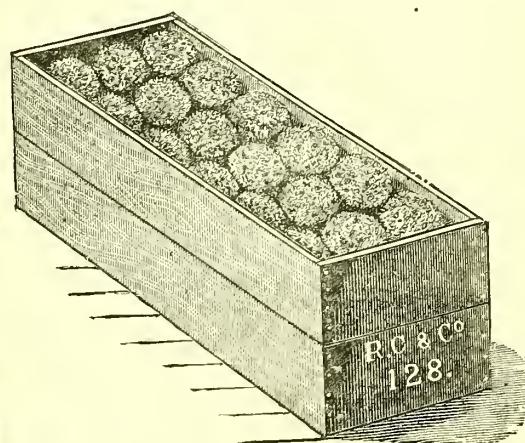
Telegraphic Address : "CRESSWELL LONDON."

Sponges adapted specially for Druggists, Perfumers, Saddlers, Brush-makers, Drapers, Fancy Warehouses, &c., will be found fully described in the following Price List—by the Case, Piece or Weight, Sandless or in Sand; on Strings, Cards, and in Blue Card Boxes.

Sponges in Cases.

SANDED OR SANDLESS.

HONEY-COMB SPONGES.



No.	Qnty.	Description	Pieces in case, about	Price case.
1	1st	Finest selected shapes, assorted sizes	120	240/-
2	1st	Do. do. do.	75	140/-
3	1st	Do. do. do.	45	80/-
4	1st	Small selected shapes	280	140/-
5	1st	Superior do. large Bath sizes	25	140/-
6	2nd	Do. quality shapes, assorted sizes	125	160/-
7	2nd	Do. do. do.	73	84/-
8	2nd	Good quality shapes, small	280	70/-
9	2nd	Do. large Bath sizes	25	100/-
10	3rd	Do. assorted sizes	145	105/-
11	3rd	Do. do.	85	70/-
12	3rd	Do. large Bath sizes	25	60/-
13	4th	For Stable use, &c.	100	50/-

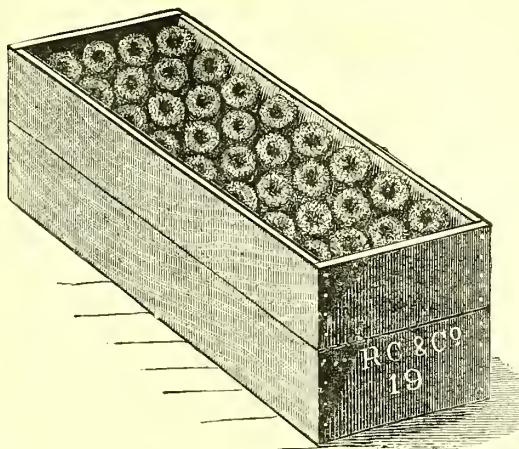
ESTABLISHED 1850.

R. CRESSWELL & Co.,

Sponges in Cases.

SANDED OR SANDLESS.

FINE TURKEY SPONGES.



No.	Qty.		Pieces in case	Price case.
14	1st	Finest selected Cups, assorted sizes	...	110 360/
15	1st	Do. do.	...	60 200/
16	1st	Do. Bath sizes	...	25 240/
17	2nd	Superior Cups, assorted sizes	...	110 240/
18	2nd	Do. do.	...	60 140/
19	2nd	Do. Bath sizes	...	35 180/
20	3rd	Fine Cups, assorted sizes	...	110 180/
21	3rd	Do. do.	...	65 105/
22	3rd	Do. Bath sizes	...	35 140/
23	1st	Turkey Solids, assorted sizes	...	100 140/
24	2nd	Do. do.	...	100 110/
25	1st	Flat Saddle, assorted sizes	...	50 190/
26	1st	Do. do.	...	30 120/
27	2nd	Do. do.	...	50 130/
28	2nd	Do. do.	...	30 80/

BROWN TURKEY SPONGES.

No.	Qty.		Pieces in case.	Price case.
29	1st	Finest selected, assorted sizes	...	130 90/
30	1st	Do. do.	...	70 55/
31	2nd	Superior quality do.	...	130 63/
32	2nd	Do. do.	...	70 40/
?	3rd	Slate quality do.	...	300 25/

FINE EGYPTIAN SPONGES.

A very good-looking and cheap kind of Fine Toilet Sponge; very durable, and soft when wetted.

No.	Qty.		Pieces in case.	Price case.
34	1st	Finest selected, assorted sizes	...	110 100/
35	1st	Do. do.	...	210 70/
36	2nd	Good quality do.	...	110 80/
37	2nd	Do. do.	...	210 55/

Florida Sponges on Strings.

		Pieces.	Per string.			Pieces.	Per string.	
A	Finest Wool, Bath sizes	...	12	30/	J	Finest Velvet, Bath sizes	...	12 25/
B	Do. do.	...	12	24/	K	Do. do.	...	12 20/
C	Do. do.	...	12	20/	L	Do. medium sizes	...	15 18/
D	Do. medium sizes	...	15	22/	M	Do. do.	...	15 16/
E	Do. do.	...	15	15/	N	Do. do.	...	15 12/
F	Do. do.	...	15	10/	O	Do. do.	...	15 9/
H	Do. medium small	...	15	7/6	P	Do. medium small	...	15 7/
I	Do. do.	...	15	5/	Q	Do. do.	...	15 4/6

Florida Sponges in Cases.

		Pieces.	Price case.			Pieces.	Price case.
FA	Finest Toilet and Bath	...	150 75/	FD	Finest Toilet and Bath	...	100 150/
FB	Do. do.	...	100 75/	FE	Do. do.	...	100 200/
FC	Do. do.	...	100 100/				

West Indian Sponges (Raw) in Bales.

We hold the largest stock in Europe of these goods, and can quote exceptionally low prices.

Finest Wool	...	...	...	...	...	...	...	...	...	from	4/6 to 7/
Finest Velvet	...	...	...	...	...	...	...	...	...	"	4/ to 6/6
Finest Yellow	...	...	...	...	...	...	...	...	...	"	1/6 to 2/6
Finest Grass	...	...	...	...	...	...	...	...	...	"	1/6 to 2/6
Finest Fine Reef	...	...	...	...	...	...	...	...	...	"	3/ to 6/
Finest Hardhead	...	...	...	...	...	...	...	...	...	"	2/ to 5/
Finest Glove	...	...	...	...	...	...	...	...	...	"	1/ to 2/6

* * Commoner qualities at all prices.

32 RED LION SQUARE, LONDON, W.C.

Sponges on Strings.

The Strings of Sponges, for which we quote below, are put in a form which will facilitate the trade of wholesale and general buyers considerably. They are compact, of excellent value, and well adapted for display.

HONEY-COMB SPONGES ON STRINGS.

No.		On each string.						Per string.
		1	Best Toilet Honey-comb, 1st quality, 18 pieces...	...	...	...	...
2	" "	"	18 "	...	...	...	...	12/-
3	" "	"	18 "	...	...	...	...	18/-
4	" "	"	18 "	...	...	...	...	24/-
5	" "	"	12 "	...	...	...	...	30/-
6	" Bath	"	12 "	...	...	...	...	27/-
7	" "	"	12 "	...	...	...	...	36/-
8	" "	"	12 "	...	...	...	...	48/-
9	" " large "	"	6 "	...	...	...	...	60/-
10	" "	"	6 "	...	...	...	...	36/-
11	Good Toilet "	"	2nd quality, 18 "	...	...	...	...	48/-
12	" "	"	18 "	...	...	...	...	9
13	" "	"	18 "	...	...	...	...	12/-
14	" Bath	"	18 "	...	...	...	...	18/-
15	" "	"	12 "	...	...	...	...	27/-
16	" "	"	12 "	...	...	...	...	36/-
17	Good General	"	3rd quality, 18 "	...	...	...	...	48/-
18	" "	"	18 "	...	...	...	...	16/-
19	" "	"	18 "	...	...	...	...	12/-
20	" "	"	12 "	...	...	...	...	14/-
21	" "	"	12 "	...	...	...	...	18/-
22	" "	"	12 "	...	...	...	...	24/-
			12 "	...	...	...	...	30/-

FINE TURKEY SPONGES ON STRINGS.

No.	Qty.	On each Per			No.	Qty.	On each Per		
		string.	string.	string.			string.	string.	string.
23	1st Superior Fine Turkey Cups	...	12	18/-	37	1st Sup. Small Fine Trky. Cups, 3 rnds.,	25	18/-	
24	1st " "	...	12	24/-	38	1st " "	25	24/-	
25	1st " "	...	12	36/-	39	1st " "	25	30/-	
26	1st " "	...	12	48/-	40	2nd Good	25	15/-	
27	1st " "	...	12	60/-	41	2nd " "	25	20/-	
28	1st " "	...	12	72/-	42	2nd " "	25	25/-	
29	1st " "	...	12	84/-	43	Good Fine Turkey Solids	25	9/-	
30	2nd Good	...	12	15/-	44	" "	25	12/-	
31	2nd " "	...	12	20/-	45	" "	25	18/-	
32	2nd " "	...	12	30/-	46	" "	25	25/-	
33	2nd " "	...	12	40/-	47	" "	25	33/-	
34	2nd " "	...	12	50/-	48	" "	25	39/-	
35	2nd " "	...	12	60/-	49	" "	25	48/-	
36	2nd " "	...	12	72/-					

FINE EGYPTIAN SPONGES ON STRINGS.

No.	Best Egyptian, 20 pieces on each string	On each string.						Per string.
		
50	20 "	...	...	...	...	...	...	6/-
51	" 20 "	...	...	...	...	...	...	9/-
52	" 20 "	...	...	...	...	...	...	14/-
53	" small 35 "	...	...	...	...	...	...	6/-

R. CRESSWELL & Co., 32 Red Lion Square, London, W.C.



Sponges on Cards.

Sponges on Cards, as quoted below, have now a very large sale. Buyers are cautioned against inferior imitations of our goods. The Cards bearing our Trade Mark will be found vastly superior to all others in the following particulars, viz. value, appearance, and regularity of assortment.

The Cards can be supplied without prices on, for Export.



	Per doz. Cards.		Per doz. Cards
Superior 1d. Honey-comb School, 1 doz. on card	... 7/	Superior 1d. Turkey School, 1 doz. on card	... 7/
" 2d. " Toilet " " " ... 14/	" 2d. " Toilet " " " ... 14/		
" 3d. " " " " " ... 21/	" 3d. " " " " " ... 21/		
" 4d. " " " " " ... 27/6	" 4d. " " " " " ... 27/6		
" 6d. " " " $\frac{1}{2}$ doz. " " " ... 21/	" 6d. " " " $\frac{1}{2}$ doz. " " " ... 21/		
" 1s. " " " " " ... 42/	" 1s. " " " " " ... 42/		
" 1s. 6d. " " " " " ... 63/	" 1s. 6d. " " " $\frac{1}{2}$ doz. " " " ... 63/		
" 2s. " " " " " ... 84/	" 2s. 6d. " " " " " ... 84/		
" 2s. 6d. " " " " " ... 105/	" 3s. " " " $\frac{1}{3}$ doz. " " " ... 84/		
" 3s. " " " $\frac{1}{3}$ doz. " " " ... 84/	" 3s. 6d. " " " " " ... 105/		
" 3s. 6d. " " " " " ... 100/	" 4s. " " " " " ... 100/		
" 4s. " " " " " ... 112/	" 5s. " " " " " ... 112/		
" 5s. " " " $\frac{1}{4}$ doz. " " " ... 105/	" 7s. 6d. " " " " " ... 136/		
" 7s. 6d. " " " " " ... 157/6	" 10s. " " " " " ... 212/		
" 10s. " " " " " ... 210/	" 3d. Egyptian Toilet, 1 doz. on card ... 27/6		
6d. Sanitary Turkey on bone handles, 1 doz. on card 42/	" 4d. " " " " " ... 21/		
	" 6d. " " " " " ... 27/6		
	" 1s. " " " " " ... 42/		
	" 1s. 6d. " " " $\frac{1}{2}$ doz. " " " ... 42/		
	" 2s. " " " " " ... 84/		
	" 2s. 6d. " " " " " ... 105/		

** Special Discount off Carded Goods for large quantities.

Sandless Sponges (by Weight).

READY FOR USE.

HONEY-COMB SPONGES.

ASSORTED SIZES.

No.	Pieces to the lb.	Price per lb.
1	Finest selected Toilet and Bath shapes, of superior texture ... about 25	35/-
	Special Bath shapes and sizes ... 7 to 12	32/- & 35/-
2	Best Toilet shapes, fine and strong texture about 25	25/-
	Special Bath shapes and sizes ... 7 to 12	28/-
3	Ordinary Bath shapes, good and fine texture about 18	17/-
4	Good large Cuts, for Carriage, Household, and Stable use ...	16
4A	Superior Cuts for Bath & Toilet use	16
5	Medium sizes for general cleaning purposes 40	12/-
6	Sup. smal.shapes for Nursery use, &c. ...	72
		13/-

May be had in handsome Blue Enamelled Cardboard Boxes of—

$\frac{1}{2}$ dozen at 4/, 5/, 6/, 7/, 8/ per box.

1 " 5/, 6/, 7/6, 9/, 10/6, 12/, 15/, 18/ per box.

Superior large Bath shape, in boxes containing

1 sponge at 4/, 4/6, 5/, 5/6, 6/, 7/, 8/, 9/, 10/ each.



May be had in handsome Blue Enamelled Cardboard Boxes for the facility of buyers.

Boxes containing 1 dozen, at 4/, 6/, 8/, 10/, 12/, 18/ per box.

" $\frac{1}{2}$ " 12/, 15/, 18/, 21/, 24/ per box.

And upwards to 120/ per box of half-a-dozen.

TERMS: 2½ PER CENT. DISCOUNT, 3 MONTHS NETT.

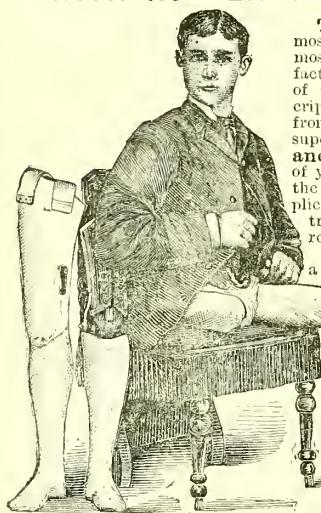
See previous pages.

ESTABLISHED 1850.

ARTIFICIAL LIMBS

(MARKS' PATENTS),

WITH RUBBER HANDS AND FEET.



ARMS restore the appearance and assist greatly in the performance of labour. From our Copyrighted Formula artificial limbs are made and shipped to all parts of the world, without the presence of the patient with guaranteed success. Parties who live at a distance, or who would be inconvenienced by a journey to our place, can supply measurements on our formula and feel the assurance that they will receive our best attention. Thousands are thus treated in Canada, Mexico, Central and South America, and Europe.

Illustrated Pamphlet in English or Spanish, and Copyright Formula sent free

U. S. GOVERNMENT MANUFACTURER.

A. A. MARKS
701 BROADWAY, NEW YORK CITY, U.S.A.

METCALF'S COCA WINE

From Fresh Coca Leaves.

A PLEASANT TONIC AND INVIGORATOR.



Public Speakers, Singers, and Actors have found Wine of Coca (METCALF'S) to be a valuable tonic to the vocal cords, and also a sedative, allaying nervous fright without perceptible after-effect. It is agreeable to the taste, and can be prescribed for children or convalescents. Athletes, Pedestrians, Bicyclists, Tennis and Base Ball Players have found by practical experience, that a steady course of Coca, taken both before dining and after any trial of strength or endurance, will impart energy to every movement, and prevent fatigue and waste from the system.

SEND FOR QUOTATIONS IN BULK.

THEODORE METCALF, ESTAB. 1837. [FRANK A. DAVIDSON]

THEODORE METCALF & CO.,
39 TREMONT STREET, BOSTON, MASS., U.S.A.

NEW YORK AGENCY—

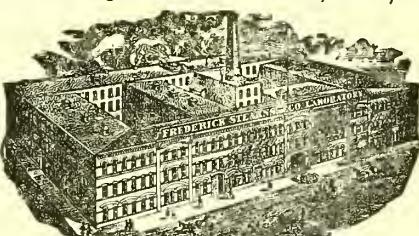
[2]

E. FOUGERA & CO., 30 North William St., New York, U.S.A.
And the Retail Drug Trade throughout the World.

FREDERICK STEARNS & CO.

Manufacturing Pharmacists. Detroit, Mich., U.S.A.

Our Illustrated Pharmaceutical Catalogue,
No. 83, of 100 pages.



And 1,000 illustrations, sent
free to any part of the world
on application.

Established 1855. Largest Laboratory of its kind in the world.

Manufacture FULL LINES of FLUID & SOLID EXTRACTS, SUGAR, GELATINE and COMPRESSED PILLS, ELIXIRS, POWDERED DRUGS, &c., &c.

ORIGINATORS AND MANUFACTURERS OF
POPULAR NON-SECRET MEDICINES.

Our Non-Secret Medicines are Popular Remedies prepared for Household use, without secrecy or fraud, for the purpose of replacing patented or quack medicines. We sell them in all parts of the world. They are pharmaceutically prepared from best materials, according to reliable formulae, and cost the retailer much less than patents. Each package bears the retailer's address as proprietor. Externally they surpass in beauty anything ever offered to the trade. TWENTY THOUSAND RETAIL DRUGGISTS HANDLE THEM. Wrappers can be furnished entirely in any language, or English, with directions in Spanish, French, and German.

We deliver for export free at New York, New Orleans, or San Francisco.

We will send free on application our Illustrated Catalogue, No. 84, which fully explains our plan and gives particulars. It contains 100 pages and 200 illustrations. Can be had in English or Spanish.

We invite importers of Secret Formula work, as we have the finest facilities for preparing such in any shade desired, and will furnish proof of wrappers in colours and any language when desired.

We are large importers of crude drugs, and can exchange our products for such. Orders sent through responsible commission merchants will be attended to as promptly as if sent direct. Correspondence solicited in all languages.

FREDERICK STEARNS & CO., DETROIT, MICH., U.S.A.
LONDON: 3 COLEMAN STREET.

The Mormon Elder's DAMIANA WAFERS.

The most Powerful
INVIGORANT
Ever Produced.

Permanently Restores those Weakened by Early Indiscretions. Imparts Youthful Vigor. Restores Vitality. Strengthens and Invigorets the BRAIN & NERVES. A Positive cure for IMPOTENCY & Nervous Debility. Prompt, Safe and Sure. 4s per box, 6 for 20s. mailed to any address in the World on receipt of price. Send for Circular

ADDRESS

F. E. CROUCH,
202 Grand St., New York.

European Agents—THOMPSON, MILLARD & CO., Curtain Road and Holywell Lane, London, E.C.

The Original Arnicated Corn and Bunion Plasters.

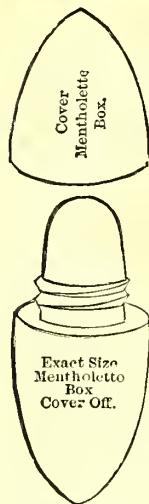
ESTABLISHED
A.D.
1846.

Please

see that
YOUNG'S

goods are
supplied, as there
are many worthless
imitations.

HENRY YOUNG, Manufacturer, LONDON.



MENTHOLETTE

IS ABSOLUTELY PURE JAPANESE MENTHOL ONLY.

ONCE
BOUGHT
ALWAYS
BOUGHT.



SELLS
AT
SIGHT.



AND HAS BEEN CALLED THE
JAPANESE MAGIC HEADACHE CURE; THE POCKET DOCTOR; THE LITTLE WONDER.

Guaranteed to be only the finest Japanese Menthol, entirely free from oil, Whiter, Firmer, more Crystalline than any other brand, and absolutely pure, making it more valuable for all the purposes for which ordinary Menthol is used. Its hardness and solidity specially fits it for sale and use in hot climates; and also makes it the cheapest Cone to be used in any climate, as it lasts longer than any other Cone. This curious remedy, used in Japan for ages, instantly relieves and removes Nervous Headache, Toothache, Earache, Faceache, Faintness (from over-crowded churches, theatres, &c.), Catarrh, or cold in the head, and many other nervous aches and pains; it also certainly relieves Neuralgia, Rheumatism, Sciatica, and other nervous affections; and has a tendency to produce refreshing sleep.

USED BY SIMPLY RUBBING.

Taken internally it relieves Flatulence, Nausea, Colic, and other pains; and is good in cases of Sea-sickness. No other Remedy in the World so Valuable (costing more than Quinine), so Pure, and so very useful in so many ways, is sold for 6d. per box.

THE GREATEST NOVELTY OF THE AGE—SELLS AT SIGHT. [2]
Price per dozen, 3s., subject to usual Discount.

DUNDAS, DICK & CO., Manufacturers, NEW YORK.

For Sale by FRANCIS NEWBERY & SONS, 1 King Edward Street, Newgate Street, LONDON, E.C.

STOP!!

25/-worth of A1 MENTHOL will realise 48/,-

Or a Profit of 23/, which is over 90 per cent.

Send a cheque for 25/-, and I will forward either of the following, together with a HANDSOME GLASS-FRONTED SHOW CASE and ROUND HANDBILLS:—

Order as	PARCEL A.	PARCEL B.	PARCEL C.	PARCEL D.
Parcel	4 dozen 6d.	3 dozen 1s.	8 dozen 6d.	4 dozen 1s.
A B C or D.	2 .. 1s.	2 .. 6d.		

Illustrated
Price List post
free on
application.

BE READY
FOR
WINTER SEASON.

Of all Wholesale Houses,
or direct from J. G. SHIRLEY, 30 Paternoster Square, E.C.

WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.



Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.

Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., 6 Worcester Drive, Club Moor, LIVERPOOL.

Can be obtained through any of the Wholesale Firms, or from the Proprietors, G. BARBER & CO., Club Moor, Liverpool.

ROBERT GIBSON, MEDICATED LOZENGE MANUFACTURER.

Carlton Works, Erskine Street, Hulme, MANCHESTER, and 1 Australian Avenue, LONDON, E.C.

EXPORTER OF

LOZENGES, BOILED SUGARS, & JUJUBES TO ALL PARTS OF THE WORLD.

SEE PAGE ADVERTISEMENT, JANUARY 15, 1886, NO. 110.

SOLE AGENTS FOR UNITED STATES—WRIGHT & RICH, NEW YORK.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/- per gallon; in 2-Gallon Jars, 5/6 per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

PERKEN, SON & RAYMENT

(LEJEUNE & PERKEN),

ESTABLISHED 1852,

Manufacture

Catalogue Free.

SPECTACLES.—SPHERICAL, CYLINDRICAL, SPHERO-CYLINDRICAL.

MICROSCOPES, TELESCOPES, THEODOLITES,

SEXTANTS.—MATHEMATICAL INSTRUMENTS.

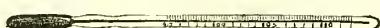
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BAROMETERS.—MERCURIAL AND ANEROID.

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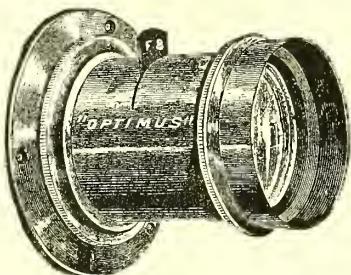
SPECIFIC GRAVITY INSTRUMENTS.

THERMOMETERS.—CLINICAL, CHEMICAL, AIR, &c., &c.



MAGIC LANTERNS OF ALL SIZES, AND SLIDES.

PHOTOGRAPHIC CAMERAS, LENSES, &c., &c.



Hatton Garden, London, E.C.

THE WHOLESALE AND RETAIL Druggists' Price Book.

By D. ELLIOTT.

NEW EDITION, revised according to the British Pharmacopœia, 1885.

Pocket Size. Bound in Leather. Price 3s., Post Free 3s. 2d.

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FOR

1887,

GLATSYER & KEMP'S PRICE BOOK OF DRUGS, CHEMICALS, & PHARMACEUTICAL PREPARATIONS, & SUNDRIES.

Revised according to the British Pharmacopœia, 1885.
Contents—132 printed and 9 blank pages, ruled throughout
for lb., oz., dr., &c. Sundries ruled per doz., gross, &c.
Post 4to, Strongly Bound, Half-calf, 10/6.

SILVERLOCK'S

SACHET, PRESENTATION, AND CARD

→ ALMANACKS. ←

CHEMISTS' COUNTER BILLS, good quality,	7½ by 5	10,000, 15/
Do. do. do. do.	9 by 5½	10,000, 22/6
Do. do. do. second quality,	7½ by 5	10,000, 12/6
Do. do. do. do.	9 by 5½	10,000, 18/

CHEMISTS' SLIP LABELS from 1/ per 1000; a reduction on large quantities.

CHEMISTS' PILL LABELS from 1/3 per 1000; " "

SAMPLES FREE BY RETURN OF POST.

Labels of every description, Price Lists, Illustrated Trade Catalogues, Prospectuses, Pamphlets, Show Cards, &c.

JOHN BELL & CO.'S
PRICE BOOK
OF
DRUGS, CHEMICALS, AND PHARMACEUTICAL
PREPARATIONS.

Contents—132 printed and 16 blank pages, ruled throughout
for cwt., lb., oz., dr.; or lb., oz., dr., gr.
Post 4to, Strongly Bound, Half-calf, 10/6.

H. SILVERLOCK,
Medical Label & General
Printer,
92, BLACKFRIARS ROAD,
LONDON. S.E.

THE
LIVERPOOL & MANCHESTER
Chemists' Price Lists.
1s. each.
Post Free 1s. 1d. each.

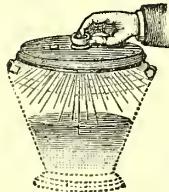
"Concilio et Labore."

**THE MANCHESTER COLLEGE
OF
PHARMACY,
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Mr. TURNER'S system of **Class Work**, as distinct from Lectures, has been proved by many years' experience to be especially adapted to the needs of Students working for the Examinations of the Pharmaceutical Society; and the great attention to *practical* work in Laboratory, Dispensary, and Museum ensures progress and proficiency. So far, the under-named Students have passed at this month's examinations:—

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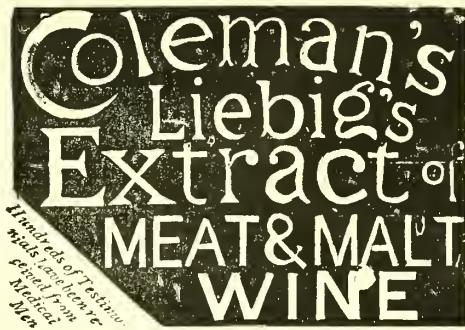
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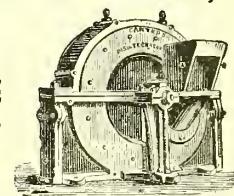
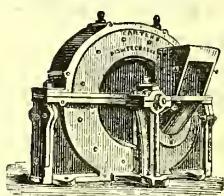
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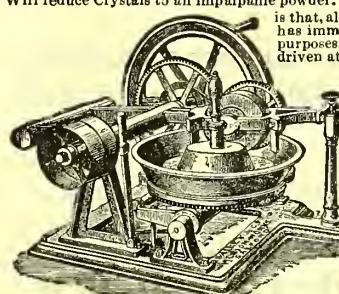
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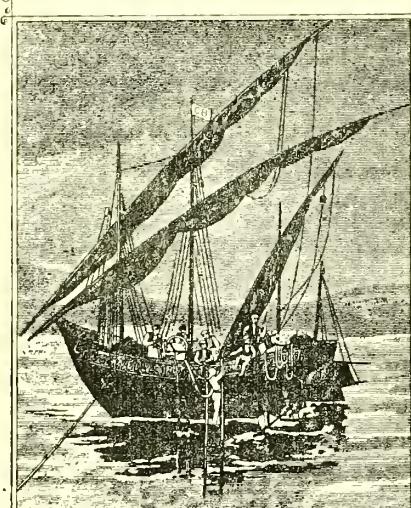
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SUPPLEMENT TO "THE CHEMIST AND DRUGGIST."

SATURDAY, OCT. 30, 1886.

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Telephone Number,

Advertisers' & Buyers' Reference List, AND INDEX TO ADVERTISEMENTS.

1852.

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ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

Please note that to satisfy Post Office requirements the Advertisements are paged twice—once in Arabic, once in Roman numerals.

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Friedrichshall and Hunyadi Janos Waters 18, TEXT 580
APOLLINARIS COMPANY
Friedrichshall and Hunyadi Janos Waters..... BACK COVER
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YOUNG, H.Corn Cure

CLASSIFIED LIST OF ALL ADVERTISERS

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Barnett and Foster
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Producer, &c.)
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Essences)
Chlorine Aerated Waters
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Ellis (Ruthin)
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Harston & Co.
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and Vichy)
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Kinnmond and Co.
La Bourdelle
Meadowcroft, W.
Mills and Co. (Bonne)
Montgomery Liqueur
Schöppel and Co.
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Fellowes and Bate, Lim.
Maud, W. R. (Measuring)
May, Roberts (Water-bath)
Morgan Crucible Co.
Orme (Scientific)
Pat. Plumbeago C. Co.
Perkin, Son and Rayment
Rothermel, Pan (Vinegar)
Wolters Otto (Balances)

AGENCIES ABROAD

Cocking (Japan)
Davidson, A. [Philadelphia]
Eisner and Mendelson (Philadel-
phia)
Evans, Sons and Mason
(Canada)
Felton (Melbourne)
Fougers (New York)
Hormusjee Ruttonjee (Bombay)
Kempthorne (N.W. Zealand)
Lennon (Port Elizabeth)
MacNaughtan (New York)
Mayhew, E. (Wstn. Australia)
Phillips and Co. (Bombay)
Prosser, E., and Co. (Sdn)
Roberts (Paris, &c.)
Rocke (Melbourne)
Sharland & Co. (Auckland N.Z.)
Shirreffs and Co. (Allahabad)
Symes and Co. (Simla)

ALMANACKS

Bowers Bros.
Ford, Shapland and Co.
Kay Bros.
Silverlock, H.
Townsend, J.
BANDAGES

Bailey and Son
Bole Hall Mill Co.
Gibbs, Cuxson, and Co.
Hutchinson, A., and Co. ("He")
Liverpool Lint Co.
Robinson and Sons
Seabury and Johnson
Statham and Co. (Porous
Elastic)
BANK

Birkbeck Bank

BATH GLOVES

Pattison, G.

OCT. 30, 1886.

BEDS, WATER

Hooper and Co.
Hutchinson, A., and Co. (Sheeting Rubber)

BEESWAX & HONEY

Kenn, W., and Son
Bowldear, W. H., and Co.

BICARB. SODA

Brunner, Mond and Co.
Gaskell, Deacon and Co.
Howards and Sons

May and Baker

BISMUTH PREP.

Howards and Sons

May and Baker

BOOKS

Lewis, H. K.
Tully, J.

Dobell, Dr. (Bournemouth)

BOTTLES

Ayrton and Saunders
Barnett and Foster (the
"Eclipse" Coppered)

Price and Hincliffe

Brooks, Peel (Perfume)

Glasgow Apothecaries' Co.

Harries and Co.

Hearn, Riddle

Hunt's Bottle Caps

Isacs, I., and Co.

Kilner Bros.

Lang, J. and J.

Poths

Simcock, T.

Simcock, W.

Thompson, Millard and Co.

Toogood (Feeding)

Vale

BOXES

Austin and Co. (Cardboard)

Ayrton and Saunders (Willow)

Bratty and Hincliffe

Estes' Turned Wood

Metz, Paul (Pine and Willow)

Noakes, B., and Co.

Robinson and Sons (Cardboard)

Rogers, J., and Co.

Self-Opening Tin Box Co.

BROMIDIA

Battle and Co.

BRUSHES

Dukas and Co.

BUTTER COLOUR

Bush, W., Son, and Co. (Marigold)

Oldfield, Pattinson and Co.

CAMPHOR

Howards and Sons (pathic)

Keene and Ashwell (Homeo)

May and Baker

Murray, Sir James (Fluid)

CAPSULES

Betts and Co. (Metallic)

Denoual, J. (Medicinal)

Hooper, B., and Co.

CARMINE

Bush, W. J., and Co.

Sellers

CEMENT

Foulkes

Kay (Cocaine)

CHALK PRECIP.

Dunn and Co.

Levermore, Aug., and Co.

CHEMICALS

Bremwell, E., and Son

Brunner, Mond and Co. (Bicarbonate of Soda)

Bush, W., and Co.

Dunn and Co.

Gaskell, Deacon and Co. (Bicarbonate of Soda)

Howards and Sons (Pharmaceutical)

May and Baker

Smith, T. and H.

Summer, R., and Co.

Sutton and Co. (Volumetric Analysis)

Tyke and King

Walker, Troke and Co.

Zimmermann, A. and M.

CHEST PROTECTRS

Evans, Sons and Co.

Lynch and Co.

Maw, Son and Thompson

Pattison, G.

CHLORODYNE

Bage, T., Blyton, and Co.

Davenn (Brownie's)

Freemantle

Towle, A. P.

CHLOROFORM, &c.

Duncan, Flockhart

Macfarlan, J. F.

Smith, T. and H.

Zimmermann

COCAINE

Howards and Sons

McKesson and Rohrbins (Hydrochlorate of)

COCOA & CHOCOLATE

Cadbury Bros.

Fry (Malted)

COD-LIVER OIL

Allen and Hanburys

Bates Bros.

Burroughs, Wellcome and Co.

Evans, Sons & Co.

Garr, Graham and Co.

Hertz & Collingwood (J. N. S.)

Hooper, B., and Co.

Smith, T. J.

Southall Bros. and Barclay (A. L.)

COFFEE

George and Welch (Dandelion)

Symington (Various Essences)

COMPOSITION**ESSENCE**

Raines and Co.

CMPRSSD MEDCNS

Hooper, B., and Co.

J. C. Tablets

Newberry, F., and Sons

CORN CURES

Robinson, B.

Young's

COTTON WOOL.

Haynes and Co.

CRUCIBLES

Morgan Crucible Co.

Pat. Plumbeago Co.

DENTIFRICES

Bedford, J.

Jewsbury and Brown

Martin, J. W. (Rozalum)

Rimmel

Sutton, O., and Co.

Thompson and Capper

Woods, W. (Arec Nt.)

DENTISTRY

Buck, F. (Lessons)

Jones, Dr. C. H. (Mechanical)

DISINFECTANTS

Government Sanitary Co.

Harrison and Co. (Hydroleine)

Mine, Sons & Macfie (Sanitary Cover)

National Chemical Co.

Rimmel

Samitas

Steel & Co. (Chloride of Lime)

Vogt, G.

Wyley and Co. (Pure Terpene)

DOG MEDICINES

Spratts (Patent) ("Fhrine")

DRUG MILLS

Bailey & Co.

Carter, J. H.

Follows and Bate (Entrpr.)

Werner and Pfeiderer

DRUGGISTS' SUN.

Ayrton and Saunders

Bass Bros.

Bourne, Johnson

Evans, Lescher and Wehn

Lairitz (Pine Wool)

Lynch and Co.

Maud, W. R.

Maw, W. Son and Thompson

May, Brooks and Co.

Newberry, F. and Sons

Schutze and Co.

Simcock, W.

Thompson, Millard

Toogood

DUBBIN

Jameson and Co.

DUTCH MEDCNS.

Bieber, J. D.

DYES

Ayrton and Saunders

Judson's (Patent Show Case)

EAU DE COLOGNE

Farina, J. M. (Gegenther)

ELECTRIC APPAR

Darton, F., and Co.

Orme and Co.

EMBROCATION

Elliman, Sons and Co.

ENEMAS

Ingram and Son

Lynch and Co.

Schutze and Co.

ENGRAVERS

Barker, W., and Son

ESSENCES, FRUIT

AND SOLUBLE

Bratty and Hincliffe

Bush, W. J., and Co.

Fletcher, Fletcher and Steven-

son

Hay, W.

Jackson, J., and Co.

May and Baker

Meadowcroft, W.

Stevenson and Howell

Summer and Co. (Ginger Ale)

Sutton, Francis and Co. (Stan-

dard Solutions)

Tyke and King (Pear and

Pineapple)

EXTRACT, MEAT

Brand and Co.

Burgoyne, Burghes and Co.

(Dr. Koch's)

Coleman & Co.

Edge Bros., Lim.

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Keene and Ashwell

Leath and Ross

Thompson and Capper

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Ayrton and Saunders

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Chesebrough Mfg. Co.

James and Co. (Herb. Pom.)

Morphy, E. (Walnut Pomade)

Rimmel

Sturrock's Oleacqua

Comarine

Towle's Toilet Cream (Thorn-

ton)

HAIR TONIC

Ayton and Saunders

Barker, C. (Crimodine)

Copper, W. B. (Crimodine)

James and Co. (Herb. Pom.)

Morphy, E. (Walnut Pomade)

Rimmel

Sturrock's Oleacqua

Comarine

Towle's Toilet Cream (Thorn-

ton)

HARNESS POLISH

Jameson and Co.

New Military Blacking Co.

ETHER

Duncan, Flockhart and Co.

Howard and Sons (Chloric)

May and Baker

Robbins

Robbins

Robins

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Beecham Dodd and Co. Evans, Sons and Co. Holloway "Mc K. & R." (void-capsuled) Smith, W. F. Warner, W. H. (Coated) Wyleys and Co. (Gelatine Oval)	Keith, B., and Co. Smith, T. and H.	Bowling and Govier Bygrave, J. and W. Howlett, S.	Critchley (Gloss) Harrop's Glaze	Association for the supply
PHARMACEUTI-	QUININE SALTS	Lemaitre, W., and Co.	STOPPERS	VALUERS
CAL PREPS	Howard and Sons Zimmermann	Tomlinson and Sons	Austin and Co. (Sprinklers) Brooks, Peel (Sprinklers)	Orridge and Co.
Allen and Hanburys Bain Bros. Barron, Squire and Co. Burke, J. and Co. (Bromide) Burroughs, Wellcome and Co. Burroughs, Wellcome and Co. (Fairchild's Preparations) Christy, T., and Co. Clay, Dod and Co. Duncan, Flockhart Fellows' (Hypophosphites) Fletcher, Fletcher, and Stevenson Gibson, R. (Lozenges) Hearon, Squire and Francis Hirst, Brooke and Hirst Howards and Sons Kay Bros. Kirk (Oino, Tinctures) Martindale (Nitro-glycerine) Stearns (Non-secret) Wink, J. A., and Co. Woolley, Sons Wright, Layman and Umney Wyleys (Various)	RESPIRATORS	Treble, G., and Son	Vallet	VERMIN KILLERS
PLASTERS	Bourne, Johnson & Latimer Evans, Sons and Co.	SOAP (SOFT, &c.)	STOVES	Battle, J. R. Steiner and Co.
Evans, Sons and Co. Gibson, C. and Co. Mather, W.	Maw, Son and Thompson	Brecknell, Turner and Sons (Skin and Saddle) Chiswick Soap Co.	Clarke, S. & Co. (Gas Heating)	VETERINARY
Sefton, A. Pe Sefton and Johnson Taylor, E.	Hutchinson, A., and Co.	Maurer's Genuine Brown Windsor	Dart, F., and Co.	Chesebrough (Vaseline, &c.) Corner, R. (Devonshire Oils)
The Pelig White Proprietary Co.	SALICINE	Mouson and Co. (Cocoa Butter)	Gibson, R.	Day, Son and Hewitt
PORCELAIN GDS	Macfarlan and Co.	SPECTACLES	SUGAR	Day and Sons
Bentley (Opal Glass) Potter, H., and Co. Toogood (C.c. Pots, regist)	SALINES	Darton, F., and Co. Perken, Son and Rayment	SYPHONS	Geary, P. (Fumigators)
PRINTING	Allen and Hanburys Evans, Lescher and Webb Hooper, B., and Co.	Lang, J. and J.	Barnett and Foster British Syphon Co.	James, R. J. (Blister)
Blake and Mc Kenzie Bowers Bros. Ford, Shapland and Co. Kay Bros. (Almanacks) Townsend, J.	SALOL.	Southall Bros. (Lime Water)	Guérat Frères	Spratts (Dogs)
POLISHING	Kuhn, B.	SPIRIT, PURE AND	SYRUPS	VINEGAR
Baumgartner (La Brillantine) Bradley, Bourdais (Albatum) Schulz, F.M. (Pat.)	SALT	Bnrough (Pure & Methyl.) Gibbs, Smith and Co.	Stevenson and Howell (American Foam)	Grimble and Co. (Pure) Rothermel (Making)
Oakey, John, and sons	Hassall, Thos. (Bay)	Jones and Mason (Methyl.)	WAXED PAPER	Wall, G. C.
PORTBLE FURNCS	Southall Bros. (Sea Salt)	Macnair, A. (Pure)	WHLESL & EXPT DRGGSTS	WHLESLE & EXPT DRGGSTS
Morgan Crucible Co., The	SANTONINE	Phillips, G., and Co. (Pure)	Allen and Hanburys Baiss Brothers and Co.	Allen and Hanburys
	Bleber, J. D.	SCHOOL	Barron, Squire and Co.	Barron, Squire and Co.
	Goodall (Yorkshire Relish)	Edinburgh Classes	Bieber, J. D. (Hamburg)	Bieber, J. D. (Hamburg)
	Lazenby (Harvey's)	Liverpool School	Burgess, Willows	Burgoyne, Burdices and Co.
	Tyler	London Homoeopathic	Clay, Fod and Co.	Clay, Fod and Co.
	SEIDLITZ PWDRS.	Manchester College	Evans, Sons and Co.	Evans, Sons and Co.
	Chubb, J., and Co.	South London School	Hooper, B., and Co.	Hooper, B., and Co.
	Stedman	The School of Pharmacy	Howards and Sons	Howards and Sons
	SELTZOGENES	Tully, J.	TEREBENE	Hearon, Squire and Francis
	Geraut and Co.	Westminster College	Darton, F., and Co.	Hewitt, C. J., and Son
	Guérat Frères		Imbach's Patent Metallic	Hewitt, C. J., and Son
	May, Roberta		Perken, Son and Rayment	Hooper, B., and Co.
	SHAVING		TINCTURE PRESS	Sumner, R., and Co.
	Hovenden (Euxesis), Lloyd, A. S. (Euxesis)		Burroughs, Wellcome and Co	Thompson, Henry Aycough
			Follows and Bate	and Son
	SHEEP DIP		TOBACCO	Thompson, Millard
	Biggs, T. Elvin Bros. (Fluid)		Corry, Soper, and Fowler	Typke and King
	Grindley		Follows and Bate (Cutter)	Walker, Troke and Co.
				Woolley, Jas., Sons and Co.
			TRADE MARKS	Wyleys and Co.
			AGENTS	
			Horn and Son	
			TRUSSES	
			Ayrton and Saunders	
			Bailey, W. H., and son	
			Colwell	
			Haywood, J. H.	
			Lynch and Co.	
			URETHANE	
			Howards and Sons	

HAY'S HOP ALE ESSENCE.

THIS ESSENCE

Is made from
the choicest HOPS
grown, and is
unrivalled for its
peculiarly fine HOP
flavour and Aroma.



REGISTERED.

HOP ALE

Made from this Essence has the full flavour of the Finest Hops, and is a really Appetising Bitter Beer.

Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.

Quantity required, two fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

"HOP ALE

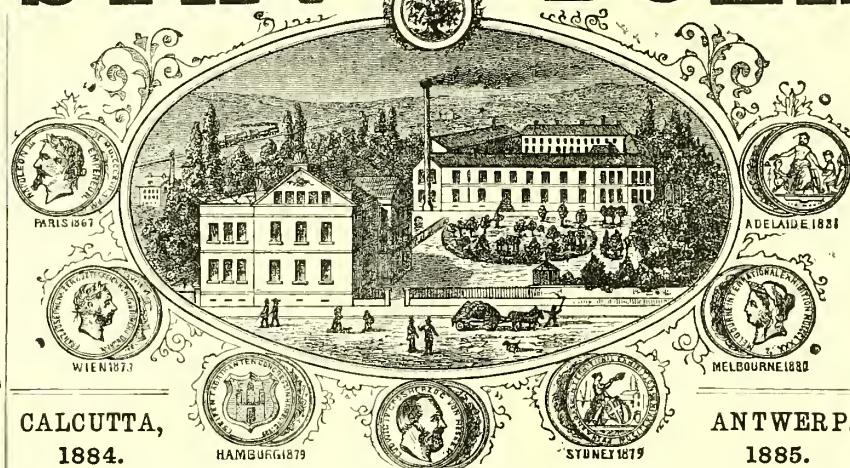
"Made from this
Essence is a nearer
approach to BASS
"or ALLSOPP'S ALE
"than any non-in-
"toxicants preced-
"ing it."

EASTERN MORNING NEWS

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AND
PERFUMER.



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and at
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BOEHM'S TRANSPARENT GLYCERINE SOAP, Manufactured with Pure Spirits of Wine and Purest Glycerine.

BOEHM'S HIGHLY SCENTED PURIFIED TOILET SOAPS—Ess. Bouquet, Jockey Club, Rose de Mai, Eau de Cologne, New Mown Hay, Lavender, Tea Rose, Violet, Mignonette, and many others.

BOEHM'S CALCUTTA GOLD MEDAL EXHIBITION SOAP, Assorted in Six Scents and Colours; a First-class Toilet Soap.

BOEHM'S TRIPLE, DOUBLE, AND SIMPLE EXTRACT OF FLOWERS, in Fancy, Plain, and Cut Glass Bottles, and in Bulk.

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FOULKES' TOILET & NURSERY POWDER.

IMPALPABLE AND DELICATELY PERFUMED

This unique Powder possesses the emollient properties of fullers' earth, free from colour, and in a high condition of purity. Unlike Starch, which in various guises forms the "Violet Powder" of commerce, this preparation absorbs without caking, and remains unchanged by both heat and moisture; therefore, to the tender skin of Infants it is peculiarly beneficial and perfectly innocuous. By its use all abrasion or chafing is prevented, and the action of any acrid humour or secretion at once neutralised.

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WALNUT POMADE.

A Triumph as a Hair Darkener.
Easy to Apply.
Easy to Remove.
Once Commenced always Used.

As a simple, effective, pleasant, and nourishing preparation it can be conscientiously recommended to a customer whose hair is grey, red, or white.
Three Colours—Light Brown, Dark Brown, and Black.

Pots— $\frac{3}{4}$ oz. (1/6) 12/- per doz.
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THIS Unique Preparation has the extraordinary property of keeping the

HAIR IN CURL.

Now used by Ladies in all parts of the World.

Needs but an introduction to command a ready and constant sale.

RETAIL
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RETAIL
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Supplied by all London Pat. Medicine Houses. Handsome Show-cards, Glass Tablets, and Circulars profusely supplied.

Foreign and Colonial Chemists should write for Terms, &c.

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INDISPUTABLY the BEST PETROLEUM JELLY in the MARKET.

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THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN
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BRECKNELL'S SKIN SOAP (Prize Medal).

A Pure, Unscented Soap, Highly Recommended by Eminent Medical Men.

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Fullers 6d. & 1s.
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Used in
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GENUINE BROWN WINDSOR & HONEY SOAPS
ARE THE BEST AND MOST ECONOMICAL.

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A NEW SOAP ALREADY IN GREAT DEMAND ON
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CONTAINING
12 TABLETS, weighing each about 5 oz., price 3/0 per box.
6 TABLETS, " " " " " price 1/9 per box.
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DEBNAMS ROAD, BERMONDSEY, LONDON, S.E.,

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INDIAN WATERPROOF BLACKING,

An Unrivalled SELF-POLISHING Oily Liquid.

MILITARY LIQUID JAPAN BLACKING,

In Stone Bottles, 3 Sizes. The finest quality produced.

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Excellent quality, in ½d. and 1d. Skins, and in VERY LARGE 1d., 2d., 3d., and 6d. Tins.

MILITARY DUBBIN AND MILITARY HARNESS COMPO,

Are unsurpassed for Quality and Economy in use. All sizes in Tins.

To insure obtaining our superior qualities specially notice the Trade Marks.



REGISTERED TRADE MARK.

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(TRADE MARK)

EMPRESS GLOSS.

FOR LADIES' SHOES.

Superior in colour and lustre to any produced. Attractively and tastefully got up, and readily sold, yielding a handsome profit to the retailer with the greatest possible satisfaction to the consumer.

EMPRESS POLISHING CREAM.

The very best for Patent Leather Goods; also for FURNITURE of every kind. In large Bottles and elegant Cartoons.

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Unequalled for all kinds of Brass and Metal work, Glass, &c., &c. Most attractively put up in richly ornamented Tins.



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SEND FOR FULL PRICE LIST AND SAMPLES.

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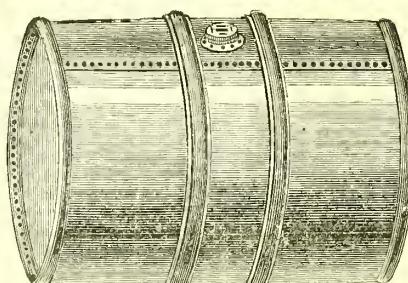
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ENAMELLED, PLAIN, AND DECORATED

TIN CANISTERS AND BOXES,

FOR PACKING CHEMISTS' AND DRUGGISTS'

SUNDRIES.



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IRON BARRELS,
CAPACITY 40 TO 120 GALLONS
AS PER ILLUSTRATION.

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Offices and Works: 142 SPA ROAD, BERMONDSEY, LONDON, S.E.

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We are making them in three qualities, “Black Iron,” “Lead Coated,” and “Tinned.”

PRICE LIST ON APPLICATION.



Where are you going, my Pretty Maid?
I'm going a milking, Sir, she said.
Are your Cattle all healthy, my Pretty Maid?
They are, thanks to DAY & SONS, Sir, she said.

Awarded 26 Prize Medals.

USED EVERYWHERE FOR NEARLY 50 YEARS.

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WORLD-FAMED

HORSE & CATTLE MEDICINES.

DAY & SONS' "PURIFIED DRIFFIELD OILS" (commonly called by Farmers "Days' Black Oils") for Wounds and Injuries of all kinds in all animals; anointing in difficult Lambing and Calving, &c. Price 2/- per bottle.

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DAY & SONS' "WHITE OILS," for all External Injuries, Sprains, Swellings, Rheumatism, &c. Price 2/- 6/- per bottle.

DAY & SONS' "ALTERATIVE POWDERS," for Horses. Price 3/- per Canister containing one dozen.

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UNIVERSAL MEDICINE CHEST, PRICE £2 4s., carriage paid.

"Everyday Farriery."

Beware of Imitations and note our ONLY Address—

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HORSE, CATTLE, AND SHEEP MEDICINES.By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE

By Special Warrant,
Dated 10th February, 1866.**"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS.**

Containing the following Matchless Remedies for all Disorders in Horses, Cattle, Calves, Sheep, & Lambs:

THE CHEMICAL EXTRACT.For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, and swellings in horses; for paining after calving and lambing, and for swollen udders and sore feet. $\frac{1}{4}$ -doz. box, 7s. 6d.**THE RED DRENCH**

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Why pay 2/6 per lb. for Citric, when a purer and more efficient Acid can be bought at about $\frac{1}{3}$ the price?

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Facts about Malt Extracts.

KEPLER SOLUTION OF OIL IN MALT.

"An ideal form for administration of fat."

—BRITISH MEDICAL JOURNAL.

A QUESTION.

There are almost as many grades of liquid malt in the market as there are variations in vernal hues. Some of them are made in America and sent over here, and some are made in Germany. The Kepler Extract of Malt is made in England.

As malt extracts are made in divers ways, and from no end of things, a question may exist in the minds of a few as to what constitutes the really best material from which to prepare an extract of malt.

ANSWER FROM AUTHORITIES.

"Any of the cereals may be employed in the preparation of malt, but barley is preferred for this purpose, because experience has demonstrated that it yields the greatest percentage of diastase" (Muspratt, Vol. I.).

"Other grains, such as wheat, oats, rye, and even Indian corn, may be malted, but experience has shown that barley is the grain best adapted to this process. It yields the largest quantity of diastase" (*Miller's Chemistry*).

"In the manufacture of malt, those grains only are used in which, during germination, diastase is developed, and among these barley takes the first rank" (Birsch).

The Kepler Malt is prepared from barley only.

BARLEY.

The absolute superiority of Barley for the purpose mentioned has been recognised for ages, and latterly scientifically explained. This grain, by its very structure alone, is in every way peculiarly adapted for making a valuable diastatic Malt Extract. This is by reason of its husks, which preserve the acospire safe in germination from the danger of blight. (It will be recollect that to make a diastatic malt, germination of the barley is first started, and then quickly checked to preserve the ferment.)

As barley contains a great abundance of "force-producers" and "tissue-formers," and phosphates as well, when all these are properly extracted the product is a superlative food for delicate stomachs and an admirable diastatic digestive. The incomparable values of a perfect extract of malt are admitted everywhere. In manufacturing the Kepler Malt Extract nothing is spared to obtain the most perfect article possible, and *it is in this preparation that we have dissolved the Kepler Cod Liver Oil.*

A DISCLAIMER.

It has recently been disclaimed that cod liver oil is soluble in a certain liquid malt, and the observations made on that score seem unquestionably correct. *We have never ourselves dissolved cod liver oil in any malt preparation except one, and that is the "Kepler Extract of Malt."* We accordingly hasten to correct the impression, if such there be, that any but ourselves have claimed to dissolve cod liver oil in malt extract. To us alone the credit of this new discovery justly belongs.

SCIENTIFIC OPINION.

Fat is in a molecular condition in the body ; why may it not be so outside of the body ? According to all known methods of determination, cod liver oil is unequivocally dissolved in the newly discovered "Kepler Solution." Those most competent to express a reliable scientific opinion state positively that such is assuredly the case. Every possibility of error has been taken into account, and the fact that in the Kepler Extract of Malt cod liver oil has been dissolved is absolute.

This oil then is dissolved in a malt extract made from barley and not from "wheat, oats, rye, and Indian corn." As Sir Wm. Roberts says :—"In malted barley we have at command an unlimited supply of diastatic power." The Kepler Extract contains no glucose nor similar adulterants. The aim is to make it as pure as possible, and from the very best and most suitable material that can be procured.

BAD CONSEQUENCES.

A poor malt extract may occasion an acid state of the stomach, with consequent closure of the pylorus, giving rise to pain and no end of bad symptoms, while oil as commonly given may cause nausea, distress, and vomiting, and "acid or acrid eructations, exciting irritation in the throat and fauces." Whenever these symptoms are produced, the comfort and welfare of patients are certainly interfered with materially. Properly prepared, a malt extract is a delicious food which will not offend the stomach in any way, for it is demulcent, digestive, soluble, and most assimilable. The same may be said of cod liver oil when it is dissolved in such a food as the Kepler Malt Extract. The Kepler Solution is as pleasant as fresh sweet cream, and is liked immensely by invalids, the aged, and infants. "It is the most palatable and easily digested of any form of cod liver oil" (*Med. Times and Gazette*). Highest authorities state that greater benefits will accrue from one pound of the "Kepler Solution" than from five pounds of cod liver oil given in any other form. "Many could take it easily who cannot take the oil" (*Lancet*).

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See "CHEMIST AND DRUGGIST," December 15th, 1874.

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For example, we have the following articles, which are
designed to be sent to India.

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program. I am grateful for your understanding and
support.

*...and the author's name is employed and mentioned in the
preface to his book, the first part of which contains the
whole of the author's life, written by himself.*

WE LIGGEN I HETEN DÉ VAN TEGELS WAT VLAANDEREN
HOUWEN SLECHTS. DE HOUTEN STOEL VAN GROTE ENKELLEN. DE
GROTE KOMENDE KERK VAN HET HUIZEN.



nowhere else kept. We sell it for us. However, there is
no house we cannot deliver within the city. So we
will be pleased to do so.

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and the other side of the world. The first thing I did was to go to the library and get a copy of the book "How to Make Money in Real Estate" by Frank J. Murphy. This book is excellent and I highly recommend it. It is a must for any real estate investor who wants to make money in real estate. The book is very informative and provides a wealth of information on how to invest in real estate. It also provides a lot of practical advice on how to avoid common mistakes made by real estate investors. I highly recommend this book to anyone who is interested in investing in real estate.

and the time now is to go without a pause in the struggle
and to continue to the end and to give all we have
to the cause of the people and to the progress of our
country and to the welfare of our race. We must
not let up in our efforts to secure the rights of the
people and the right of freedom and to progress in the
right direction. We must continue to work hard and
to fight. It is our duty as Americans to defend our
country and to protect our rights and to work
for the betterment of the country and the world.

That will be the first of the new year.

Dear Friends at home & Friends as far as the
West Indies and South America will be glad to hear
of your visit and we pray God to bless you in your
way and return you safe. We are now in the
Caribbean, about mid-ocean, a large party of which has
been engaged in a long time in whaling. The
Captains of these vessels are all here, and we have
had a great deal of company.

been that he has written to exhibitors offering to do his best to get an improved award for dissatisfied competitors who would guarantee him ten guineas in the event of success. How far Mr. Riordan could influence the juries has not yet appeared, and he says, with much force, that he never pretended that he should use any base means to advance the interests of his clients, but that he had a right to ask for payment for legitimate services. There has never been an exhibition at which prizes have been awarded without these recriminations, and it is abundantly certain that the tendency of the system is towards injustice. Would it not be possible to abandon the prize awards altogether, and in their place to employ competent authorities to report briefly and disinterestedly on every exhibit?

CORRECTIONS OF THE PHARMACOPÉIA.—The formidable list of over 300 corrections which have been brought into proper order by the readers of this Journal is something for pharmacists to ponder over. Our sole object in proposing this compilation was to get all the corrections together in one list, and we had hoped to include in it corrections of processes so far as they appeared reasonable; but the lists of such corrections as we have received contain so many revolutionary proposals, that we have preferred to confine our list to literal errors, mistakes in calculation or in physical constants, such as the correct formula of a chemical, and those subsections which are so useful to students. These sections are very imperfect, and as they stand at present are rather misleading. In future editions subsections should either be made perfect or omitted altogether. There are a number of corrections which we have not incorporated; these refer chiefly to the strength of various liquors, and the comparative strength of certain preparations as prepared from the definite weights and parts given. This may be a subject for useful discussion; but it should not be forgotten that the editors of the Pharmacopœia assumed a heavy responsibility in making these innovations, and, as they have explained, fair approximations are in the circumstances as good as mathematically accurate figures. It may perhaps be possible to go a step further on another occasion, but so far the changes which were made in the liquors appear to be working well, and grumbling has ceased. We shall be glad to receive any other corrections which may be known to those who use our list.

DIARY FOR NEXT WEEK.

Monday, November 1.

Royal Institution, General Monthly Meeting, 5 P.M.
Society of Chemical Industry, at 8 P.M., Paper on "What shall we do with our Tar?" by E. H. Traschel Wright, C.E.

Wednesday, November 3.

Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 8.30 for 9 P.M.

Thursday, November 4.

Chemical Society, at 8 P.M.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE LAST ECHOES FROM THE SURGICAL CONGRESS.—Before separating the members of the late gathering were treated to a visit to the Paris Morgue, where Dr. Brouardel and his assistants entertained them with experiments on the congelation of dead bodies. The Belgian, Dutch, Swiss, and Russian physicians who attended the performance were deeply interested and highly gratified. Dr. Pozzi, who has been at the same time the organiser and the Secretary-General of the Congress, was, on October 23, appointed a Knight of the Legion of Honour, as a reward for his labours.

MORE LAÏCIZATION.—On October 28 the Necker and the *Enfant Jésus* hospitals were laïcized. More than a month since the sisters were notified that they would be replaced by lay nurses.

THE NEW PHARMACY BILL.—On October 21 M. Lockroy, Minister of Commerce, presented to the Chamber of Deputies the Bill regulating the practice of medicine and pharmacy. On the motion of Messrs. Lockroy and Letellier the Bill was ordered to be printed and referred to the committee who had the matter in charge before. Unless baneful politics interfere, French pharmacists may at last obtain practical and intelligible legislation.

HALF RATES TO PASTEUR'S PATIENTS.—In consequence of a number of petitions forwarded through several préfets, M. Tarrien, the Minister of Public Works, has informed them that the railway companies have consented to transport Pasteur's patients both ways at half-price in third-class carriages; but the request for such a favour must be accompanied with a certificate of the mayor of the locality to the effect that the patient is assisted by the commune.

PHYSICIANS, PHARMACISTS, AND VETERINARIANS IN THE ARMY.—Physicians, Pharmacists, and Veterinarians in the Army have received another favour from the War Department. Hereafter doctors of medicine, pharmacists of the first class, and graduated veterinary surgeons doing their term of military service as auxiliaries in a hospital or an army corps may be, after a year's meritorious service, appointed doctors, pharmacists, or veterinary surgeons of the reserve, and sent home. The number of young men to be thus favoured will be determined each year by the Minister of War.

THE DIRECTORSHIP OF THE COLLEGE OF PHARMACY.—At the meeting of the general council of the Faculties of the Paris Academy, held on October 25, action was taken upon the recommendations of the Faculty of the College of Pharmacy. Having to present two names to the Minister, from which to choose a successor to M. Chatin, the council unanimously presented that of M. Planchon, in the first place, and in the second that of M. Leroux, the professor of physics. It is well understood that the unanimous election of Professor Planchon by the College Faculty settles the question, but red tape must be respected.

DEATH OF PROFESSOR J. BOUIS.—Jules Bouis, a professor of toxicology at the Paris College of Pharmacy, and an assayer of the Mint, died on October 23, at the age of 64. The deceased had been a professor of toxicology at the College since 1862. He was a member of the Academy of Medicine, and a Knight of the Legion of Honour. He was a chemist of some prominence, having written several important memoirs respecting toxicology and general chemistry, and contributed to the latest revisions of the "Manuel complet de Médecine légale," by Briand, Chaudé & Bouis, a standard work, whose tenth edition was published in 1879.

A NEW PRIZE TO BE OFFERED TO CHEMISTS.—On October 19 the French Senate considered the question of adulterated liquors, and the means to detect and prevent the sophistication. Upon the motion of Senator Th. Roussel, chairman of the committee appointed to examine the subject, the Senate decided (1) that a prize be offered to any chemist who may discover a simple and practical process for detecting, qualitatively and quantitatively, the presence of the higher alcohols, differing from the ethyllic, in the spirituous liquors of commerce; and (2) that the Academy of Sciences be charged with the duty of determining the conditions necessary to obtain the reward, and of awarding the prize according to the programme which the Academy is to decide upon. The Senate having no power to originate financial measures, the value of the prize is not mentioned in the resolution, but 50,000 francs (2,000 £.) was the sum spoken of during the discussion. The object of the Senate is to prevent the spread of alcoholism—not quite the same thing as drunkenness—which is known to be caused much quicker and in a more dangerous form by the higher alcohols than by pure ethyllic alcohol. The idea is not exactly a new one, as it was discussed in 1878 by the International Congress held in the Trocadéro, but no conclusion was arrived at, save the declaration that some satisfactory process was within the possibility of chemistry. The senatorial resolution was, on October 22, presented by President Floquet to the Chamber of Deputies, with favourable mention. By unanimous consent the document was ordered to be filed, and it is expected to be soon acted upon, as M. de Freycinet, when the Bill was before the Senate, promised to support the measure.

Metropolitan Reports.

CHARGE OF EMBEZZLEMENT.—At Worship Street, William Edwards, 32, a chemist, surrendered to his bail on a charge of having stolen a sum of 4*l.* 14*s.*, the moneys of his employer. Mr. Forrest Fulton, barrister, prosecuted; Mr. Lynch, barrister, defended. The evidence showed that the prosecutor, Alfred George Annett, a wholesale chemist, of Norton Folgate, also carried on business as Field & Co. at 157 High Street, Borough, and the prisoner, who was said to be a certificated chemist and dentist, became manager of that business, after having been previously in the prosecutor's service. An arrangement was come to whereby the prisoner for 1,000*l.* became the purchaser of the business. The arrangement for the purchase was the payment of 50*l.* (15*l.* being allowed for previous transactions), and the prisoner was then to continue the payment of the balance at the rate of 5*l.* per week. Within two years, however, it was said that the prisoner became involved with the creditors, and in consequence reassigned the business and premises to the prosecutor, himself being engaged as manager at a weekly salary of 2*l.* It was the prisoner's duty then to make out dockets of the receipts in the shop, and the prosecution charged him with having suppressed the amount named in the charge as well as other monies. The cross-examination of the prosecutor went to show that the prisoner was the actual owner of the business, and that he was not a servant to the prosecutor. A second case of having embezzled a further sum of 7*l.* having been gone into, Mr. Bushby committed the prisoner for trial, but accepted one surety in 3*l.* for his appearance.

CHLORAL OR PRUSSIC ACID.—On October 22, and again on October 26, Dr. Danford Thomas resumed the inquiry at the Islington Coroner's Court into the circumstances attending the death of Mr. Henry Hart, aged 77, a widower, lately residing in the house of Mr. Edwin Stovell, chemist, 174 Hornsey Road, Holloway. The facts were stated in our report last week. Mr. Stovell stated that deceased paid him 1*c.* per week for lodgings and attendance, and that witness had borrowed 5*l.* from him. It was not true that deceased had lived with them as a destitute person. A few weeks ago he asked witness to prescribe for him some prussic acid, bicarbonate of soda, and camphor. He said he felt "sick at heart" and lonely since his wife's death. Witness said, "Go to Dr. Watson, your old physician." He had since heard that the deceased purchased some prussic acid from witness's son, Ernest Stovell, who was junior assistant to Mr. Hestle, chemist, 200 Essex Road. Ernest James Stovell, the young man referred to, and whose age is about 17, said that deceased called upon him the day before his death, and "rushed" him into serving him with half a drachm of prussic acid. He asked for half an ounce at first. Witness did not enter the transaction in the book, although the deceased paid for the poison. He (deceased) said he wanted it for sickness. Charles F. Wiltshire, stationer, 125 High Street, Notting Hill Gate, a nephew of the deceased, who is about to take out letters of administration to the estate, said that the deceased was not in the habit of taking chloral, and had no delusions. He had heard that his uncle insured his life for 2,000*l.* or 1,200*l.* in an insurance society. Professor Augustus Joseph Pepper, F.R.C.S. (Examiner in Forensic Medicine, London University), deposed that death was due to prussic acid, although he could find no traces of the poison in the stomach. These traces, however, would disappear in about three days. Mrs. Stovell, recalled, said that Mr. Hart in her presence wrote a letter on September 30, bequeathing to her all the property he might die possessed of. He placed it in an iron safe, and Mr. Nodes, the undertaker, found it there. She had forgotten all about it. Mr. George Porter, a builder, residing at 13 River Street, said that Mr. Hart had lodged with him for eleven years. He could not account for him going to live with the Stovells except that Mrs. Stovell "came after him." The deceased did not like Mr. Stovell. Mrs. Stovell, again recalled, having stated that the day after the death she wrote to her son asking him to come home, and that she saw him on the Tuesday, the Coroner observed that there was a conflict of evidence on an important point, as Mr. Stovell had asserted that the son came home on the following Sunday.

Mr. Stovell, recalled, said that the deceased became surety for him to the amount of 30*l.* for the goods in the shop, his son Ernest Stovell being the other surety. Witness's solicitor, Mr. Harvey, held the deceased's building society book and also the letter bequeathing his property to Mrs. Stovell. Detective-Sergeant William Sealy said that Dr. Watson, the deceased's late physician, 391 City Road, had stated that Mr. Hart was in the habit of putting three or four drops of prussic acid in his medicine—at his own suggestion—for indigestion. Mr. James Hestle, chemist, 200 Essex Road, said that Ernest Stovell had been his assistant a little more than a month. The counter-book was not meant to be a perfectly accurate daily account. His assistant certainly should have entered the transaction in the poison-book. If he (witness) had been in the shop he would not have permitted such a deadly poison as Scheele's prussic acid to be sold to the deceased. After some further evidence had been given, the jury returned a verdict to the effect that deceased died from syncope caused by taking prussic acid, but that there was not sufficient evidence to prove how or for what purpose the said acid was administered.

LAUDANUM CUSTOMER.—Some sensation was occasioned at Lavender Hill, Clapham, one evening last week, by an event which occurred at the shop of Messrs. Foster & Dallas, chemists. A young man named Charles Smith, nineteen years of age, had been drinking with some comrades. He suddenly left them saying he was going to get something to alleviate the toothache from which he was suffering. He then entered Messrs. Foster & Dallas's shop and asked the assistant for three-pennyworth of laudanum. After some questions as to the purpose for which he wanted the laudanum, he was served with 2 drachms. Having paid for it, he immediately put the bottle to his lips and swallowed the whole of it before the assistant could prevent him. The effect of the laudanum, coupled with the alcohol he had already imbibed, was almost instantaneous, and he fell down in a stupor. Medical assistance was at once obtained, and by extraordinary efforts on the part of the medical men and the constables, Smith was aroused and was taken to the infirmary. He was treated there for two or three days, and ultimately recovered. It is supposed that in a drunken condition Smith became confused as to the method of applying the laudanum for his toothache, and that the swallowing of it was the result of this confusion of mind.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BRADFORD.

BEER ANALYSIS.—In a recent prosecution at the Bradford Police Court, Mr. C. O'Sullivan (Messrs. Bass & Co.'s chemist and analyst) stated in evidence on behalf of the prosecutors (Bass & Co.) that on August 31 last he received a parcel containing six half-pint bottles of beer, upon which were pasted Bass's labels. He opened two bottles, which he analysed and found to be not Bass's pale ale. He had no doubt about it. [We do not for a moment doubt Mr. O'Sullivan's evidence, but it would be interesting to learn by what chemical test Bass's ale can be distinguished from that of other brewers.]

CALNE.

LEAD-POISONING.—The following is the full text of the Medical Officer's report to which we briefly referred in our last week's issue:—Dr. Campbell stated that for some years he and his partner had been called in to attend, principally during the months of August, September, and October, several cases of acute and sub-acute lead-poisonings, and despite every exertion they could not trace the source of poisoning. They had had analyses of drinking-water, beer, the bread and other articles of food made, all of which were in turn inspected, but found to be pure. A short time since he attended no less than seven cases, all suffering from the same symptoms. He elicited from a woman that her husband

had been drinking home-made rhubarb wine. He found that the glaze in the pans in which the wine was made contained as much as 60 per cent. sometimes of white or red lead, and he also found that during the process of fermentation the acid from the fruit used, with the acetic acid or vinegar, would dissolve the lead, and thus form acetate of lead, which was a powerful irritant poison. Of the seven cases mentioned, three had been drinking rhubarb, two red currant, and two black currant wine. In another case the man had imbibed the lead through eating bread leavened in a glazed pan. He advised that all wines that had been made "in these beautifully clean glazed pans" should be thrown away, and in future all home-made wines should be made in wooden vessels. At the conclusion of his report Dr. Campbell made experiments before the Local Board to show the existence of lead in the glazed surface of the earthenware pans.

CARDIFF.

THE DRUG TRADE.—In this important South Wales port there are some thirty chemists' shops, including about a dozen branch establishments. The town is also blessed with a "drug store," carried on by Messrs. W. T. Hicks & Co., at 28 Duke Street. This firm issue a monthly price-list, in which they "assure the public generally that—although their prices are in most cases one-third, and in many one-half, less than those generally charged—the most scrupulous care and attention is given to the quality and purity of all articles supplied by them, and that no better can be obtained anywhere, at any cost." They also state that they have by far the largest stock of drugs and sundries in South Wales. Their price-list of some forty pages is divided into seven parts, and is interspersed with advertisements of their own specialities. A short distance from this establishment is another firm of chemists, which has been open about eighteen months, under the title of "Jesse Williams & Co., pharmaceutical chemists." They also issue a monthly list, and pose as benefactors to the suffering public, and claim to supply their goods at moderate prices. "It having unfortunately," they state, "become a custom among retail chemists, and nowhere more than in South Wales, to purchase their entire stock of drugs and chemicals from wholesale manufacturers residing many hundreds, and even thousands, of miles away—it may be in another continent altogether; and upon the honour of this distant manufacturer they have to rely for the purity and genuineness of every drug, chemical, tincture, pill, or pharmaceutical preparation whatsoever they sell; it will readily be perceived what a source of public danger this practice may become through unscrupulous conduct on the part of wholesale manufacturers, and Messrs. Williams claim for themselves the unique position in their district of being able to afford the public a personal guarantee of the genuineness and purity of every article retailed at their establishment, all pharmaceutical preparations and most chemicals, being prepared on the premises, and those goods which of necessity are purchased in a crude state are subjected to a rigorous analysis to ensure purity, while the prices charged will be from 30 to 40 per cent. lower than the usual prices."

The following is a list of Messrs. Williams & Co.'s prices for dispensing prescriptions and family recipes:—

Drops or Concentrated Medicines.

1-oz., 1½-oz., 2-oz., and 2½-oz. size, from 6d. to 10d.; 3-oz. to 4-oz. size, from 1s. to 1s. 6d.; over these sizes, about 4d. per oz.

Mixtures.

1½-oz. to 3-oz. size, from 6d. to 1s.; 6-oz., 8-oz., and 10-oz. size, from 8d. to 1s. 4d.; 12-oz. and 16-oz. size, from 1s. to 1s. 9d.

Gargles and Lotions.

4-oz. to 8-oz. size, from 6d. to 9d.; 10-oz. to 16-oz. size, from 10d. to 1s. 4d.

Liniments.

1-oz. size, 6d.; 2-oz., 10d.; 3-oz. and 4-oz., from 1s. to 1s. 6d.

Ointments.

1-oz. size, 8d.; 1½-oz. to 3-oz., from 10d. to 1s. 4d.

Pills.

Per doz., 5d.; silvering, 2d. per doz. extra; enamel coating, 3d. per doz. extra; enamel coating, from 6 doz. and upwards, 1d. per doz. extra. Varnishing, 1d. per doz.

Powders.

1 only, 2d.; 2 only, 3d.; 6 for 6d.

Occasionally when the ingredients are very costly, or when the prescription requires complicated or tedious manipulation, a variation from these prices must be made.

This firm announce their determination "never to prescribe under any circumstances."

That these firms do not get all the pharmaceutical trade of the locality we gather from a statement which has been made to us, that Mr. John Munday, the proprietor of a first-class English and foreign pharmacy here, sold last year more than 20,000 bottles of a salicylic corn cure which he puts up.

HARROGATE.

ON October 22 the ceremony of turning on the water into the new sulphur-water reservoirs recently constructed for the Harrogate Corporation (for the purpose of conserving and storing the sulphur water, which is otherwise allowed to run to waste during the winter months) took place in the presence of the members of the Corporation, representatives of the medical profession, and a somewhat large gathering of townspeople and visitors. A silver key was presented to the mayor, by which a valve was opened, admitting the waters into the tanks. The area actually covered by the reservoirs is about 770 square yards, and consists of twelve tanks or compartments, each about 19 feet square and 13 feet deep, capable of holding 31,000 gallons each, making an aggregate for the whole of 372,000 gallons, being between three or four times as large as the storage-reservoirs at present in existence.

ISLE OF MAN.

A TRADE-MARK CASE.—ANTI-NAUSINE.—On October 20, in the Douglas Chancery Court, before His Honour the Clerk of the Rolls, the Attorney-General of the island made application for an injunction to prevent Mr. F. W. Dodgson, chemist, Ramsey, continuing to issue a wrapper which is in imitation of the wrapper on the "Nausine" bottles of Mr. R. K. Kermode, chemist, Castletown. It is claimed for "Nausine" that it is a preventive of sea-sickness, and the article against which an injunction was sought is called "Anti-Nausine," and is claimed to possess equally valuable properties. Mr. Cruickshank, for defendant, said he was prepared, on behalf of defendant, to admit an injunction as prayed for. The defendant had no wish to sell an article which was an infringement of plaintiff's trade-mark, or to sell an article in a wrapper so like the plaintiff's that it might be considered an infringement of his trade-mark. The plaintiff also prayed for an account of the profits on the article, but it had not had a very extensive sale. The article was supposed to be a panacea for sea-sickness, but "Nausine" was a name sufficient of itself to produce sea-sickness without going to sea at all. He had an affidavit in which his client said the sale had not exceeded twelve bottles. After some discussion as to the form of the judgment, the decree was agreed to.

LIVERPOOL.

SUICIDE OF A DRUGGIST'S ASSISTANT.—On October 23 Mr. Clarke Aspinall, the borough coroner, held an inquest on the body of Richard Barnett, aged 40, a druggist's assistant, who lodged at 19 Pine Street. Deceased had been employed at a wholesale drug-house in Hanover Street, but a fortnight ago he was dismissed from his situation. He did not tell his landlady of this, however, and went out every day as usual except on Thursday and Friday, October 15 and 16, when he stayed in the house, complaining of a cold. On Thursday last he went out in the evening, telling his landlady not to wait up for him, as he would be late. Next morning, at half-past seven o'clock, she went to his bedroom door to wake him, but could get no answer. Opening the door, she found him suspended by a rope from the wardrobe door. He was cut down, but found to be quite dead. It was stated that he was not a temperate man, and had suffered in consequence whilst in Glasgow some time ago. On the dressing-table was found a letter written by deceased in which he acknowledged a

debt due to his landlady, and added that he was tired of this work. Verdict, "Committed suicide during temporary derangement."

SALE IN SOUTHPORT.—The business of the late Mr. Kershaw, Lord Street, not having found a purchaser as a going concern, was brought piecemeal under the hammer by Messrs. Whitehead & Son on October 22, when good prices were obtained. It was reported that Mr. "Smith," who bought most of the fixtures, will reopen the shop under another and more legitimate name. Smart man, Mr. "Smith"! Two or three well-known Liverpool *confères* journeyed down to attend the sale, and were determined to buy something as they were there.

TRANSFER IN TRANMERE.—The business carried on by the late Mr. Charles Jones, Woodside, as a branch establishment, at Higher Tranmere, has been sold by his executors to Mr. F. Price, Liverpool.

PROVIDENT DISPENSARIES.—Despite persistent letter-writing to the local papers on the part of its promoter, a doctor, this scheme hangs fire. We have already too many sixpenny dispensaries, not to mention lavish gratuitous physicking at numerous hospitals, &c., for the "honest son of toil" to see the fun of subscribing to another affair. Why should he, when he can get now more than all he wants in that line for practically nothing?

THE WOMEN'S HOSPITAL.—The dispute, initiated by the trial, *Casey v. Imlac*, as to the alleged inordinate and indiscriminate practice of abdominal section at this institution, waxes even fiercer, and the highest names in the surgical world are being invoked *pro and con*. There is smoke enough, whether there is fire or not.

THE INTERNATIONAL EXHIBITION.—The remarks with which you conclude your third notice of this, in your issue of October 23, are prescient. There is great dissatisfaction with the awards made in every department, and the severest criticisms are not only spoken but plainly written against the executive. Firms of undoubted standing have actually returned gold medals, refusing to be partakers of what they bluntly state to be a "job."

DEATH AT A ST. HELENS CHEMICAL WORKS.—A labourer engaged in working by the side of a caustic-soda pan at Messrs. Lockwood & Leith's factory overbalanced himself on Tuesday and fell into the boiling liquid, 6 feet deep. He was pulled out at once and attended by a couple of doctors, but was found to have sustained such injuries that he died almost immediately.

GROWING MEDICINAL PLANTS.—Inspired by your several notices under this head a local nurseryman and florist purposed to try his hand at the cultivation of some of the more readily saleable plants; henbane is to be his first venture, and the list is to be extended as he acquires, at one and the same time, wealth and experience.

MUNICIPAL ELECTIONS.—In Liverpool and four immediately neighbouring towns there are, amongst the candidates now offering themselves for election, no fewer than nine doctors or surgeons and one solitary chemist and druggist, Mr. Thos. Paddock, already a councillor of the borough of Bootle. Surely if these medical gentlemen can find time to leave their patients and attend council and committee meetings some more drugists might do the same, and clothe themselves in a little brief authority. In these days of "Omnia Sanitas" they should be able to do good service. At any rate they would be putting themselves forward, which would be something of a new departure for our too-modest trade.

POOLE.

EARLY CLOSING.—The chemists of this town have unanimously resolved that on and after November 1, their establishments shall be closed at eight o'clock instead of at nine o'clock, as at present, excepting on Saturdays.

SHEFFIELD.

THE SCHOOL OF MEDICINE.—The medical faculty have appealed to the town of Sheffield to assist them in raising a sum of 5,000*l.* for a new school of medicine to be incorporated

with Firth College. A meeting in promotion of this object was held at Firth College last week, at which the mayor presided. The Archbishop of York and Sir Andrew Clark, M.D., were among the speakers. The Archbishop, alluding to the existence of the present school since 1828, compared the state of medical knowledge fifty-eight years ago with that which prevails at present. "Fifty-eight years ago," he said, "a physician's prescription was a most complicated structure. It put together a great many ingredients, and did what I think is the cruellest thing of all—it added a sweetening element, which only had the effect of making you hate everything sweet for the future. In short, to resort to a physician who did not give you plenty of drugs for your money was a kind of medical heresy. I think if we were in a settlement where we derived all our drugs from without, and if our last supply were exhausted, if by stress of weather no further supply could reach us, the physicians on this platform would be able to do a great deal for us without any drugs at all; they would tell us what not to eat and what to eat; they would tell us what our habits of body ought to be, and cheerfully by the light of modern science do a great deal of good to us all. And possibly we should not be so very much worse at the end of the year for the lack of the supplies of calowel and so on which were withheld, provided always that the rules that were prescribed to us as to our mode of living, exercise, and the like were faithfully observed. I think those prescriptions would be very valuable, and that we might possibly do without a great deal of the other. The old prescriptions remind one a little of a story of the great judge, Lord Ellenborough. A medical man was giving evidence one day in a trial, and he said that a certain poison which had been taken by a man would have done him a great deal more harm only that he happened to have been taking another kind of drug just before, and Lord Ellenborough said from the bench, 'Do you mean to say that you regard the human stomach as an arena for conflicting poisons?' I am afraid that old medicines were a little open to that taunt."

WINCHESTER.

CURIOS POISONING CASE.—An inquest was held last week on a child nearly four years old, the daughter of Thomas Pen, a corporal in the King's Royal Rifles. On Friday morning, October 15, the child went to school, but returned with a sick headache, which continued till night. About midnight the child became worse. Mary Chalk, a nurse, who was called in by the mother, found the child's tongue protruding from the mouth, and its left side stiff. Pending the arrival of the doctor, she gave it a dose of easter-oil. The child died on Saturday morning. Surgeon-Major J. Riddick, of the Medical Staff, said he was called to the child at twenty minutes to one on Saturday morning, and went at once. The child was dying in Mrs. Chalk's lap, and had all the symptoms of belladonna poisoning, and it struck him as possible the child had eaten the berries of the deadly nightshade, which were very attractive at this time of the year. He questioned the parents, and ascertained as to its having eaten berries. He remained with the child two hours, but it was so far gone that it was impossible to do anything for it. At that period of time any poison it had taken was absorbed. He had since made a post-mortem examination, and found traces which showed the presence of poison. In the stomach and small intestines was a greenish fluid. While he could not conclusively determine the cause of death he believed the greenish fluid would on analysis prove to be a vegetable narcotic poison. Otherwise the child was perfectly healthy. A little girl who was present, but was not sworn, stated she had seen the child eating a piece of horse-chestnut and took it from her. Surgeon-Major Riddick said this chestnut contained a very acrid bitter oil; he did not think the deceased would have eaten enough of it to cause death. The inquest was adjourned for a few days in order that the green fluid might be analysed by Dr. Earle, who at the next sitting stated that death had resulted from an acrid poison taken inadvertently with the food, and after hearing further evidence given by the mother, the father, and a Mrs. Connolly, who deposed to purchasing watercress of a boy who brought it to the barrack door, and finding it very dirty and containing grass and weeds, the doctor gave it as his opinion that the child must have eaten water-crow-

foot, a poisonous weed growing side by side with watercress, and which it resembles, except that the true cress has its largest leaves furthest from the root, and the crowfoot its smallest furthest from the root. It was very common around Winchester, where cress could be picked by anyone. The boy said the cress was bought of a strange man. The coroner expressed sympathy with the parents, and the jury found in accordance with the medical evidence, thanking also Dr. Earle for his careful investigation.

WOLVERHAMPTON.

INACCURATE TINCTURE OF QUININE.—At the Police Court, on October 22, A. F. Hartshorne, chemist, Horsley Fields, Wolverhampton, was summoned for supplying tincture of quinine not of the nature, quality, or substance demanded. Mr. H. Brevitt (Town Clerk) prosecuted on behalf of the Sanitary Committee, and Mr. R. A. Willcock defended. The evidence showed that Mr. Blanton, sanitary inspector, purchased 2 oz. of tincture of quinine from the defendant, and the analysis proved that it was 39 per cent. deficient of the actual ingredients according to the British Pharmacopœia. A fine of 40s. and costs was imposed.

SCOTLAND.

ABERDEEN.

SUDDEN DEATH OF PROFESSOR DYCE DAVIDSON.—On Friday, October 22, Professor Davidson, professor of materia medica in the University of Aberdeen, was engaged giving the second lecture of his course for the new session in the Natural History class-room of Mareschal College. He appeared to be in his usual health and spirits. After lecturing for half an hour, however, he complained of the closeness of the atmosphere in the room, and had two doors thrown open to admit fresh air. His remarks on the subject occasioned some surprise to the students, the temperature of the room being normal at the time, but it was taken for granted that the lecturer had somehow over-heated himself, and that consequently the air had seemed to him oppressively warm. It became apparent that the Professor was speaking under considerable difficulty, and when in the course of a few minutes a growing paleness was noticed on his face, the students began to suspect there was something wrong. The Professor, stopping a second time in his lecture, observed that there was surely something wrong with the gas, which he thought must somewhere be escaping, and shortly afterwards, finding he could not proceed with the lecture, he intimated to the students that he was feeling somewhat ill, and that he would discontinue lecturing for a little until he recovered. He then staggered to the form in front of the table in the lecture-room, and sank down upon it. The students now became thoroughly alarmed, and gathered round the Professor to render him any assistance in their power, and in accordance with his request they laid him on the floor beside the form on which he had stretched himself. Dr. John Hall, Professor Davidson's assistant, was sent for, and perceiving the serious condition in which Professor Davidson was, he told the students that the class must be closed for the day, and that they should not remain longer in the room. Professor Davidson, though fast becoming insensible, heard what Dr. Hall had said to the students, and mustered strength enough to say, "Monday at four o'clock." This sentence formed the last words uttered by Professor Davidson. It had cost him an effort to speak them, and lying down as if exhausted, he passed into a state of unconsciousness, from which he never recovered. Several eminent medical professors soon arrived, but it was seen that nothing could be done, and having placed Professor Davidson on the table beside which a few minutes before he had been lecturing, the company awaited the end. Remaining insensible to the close, Dr. Davidson expired at about twenty minutes to six o'clock, almost exactly an hour after the symptoms of illness had first appeared. Mrs. Davidson was present during the last moments of her husband. The cause of death was apoplexy.

The deceased was a son of Mr. Charles Davidson, Forresterhill (formerly principal partner in the well-known firm of Davidson & Kay, druggists, Union Street), and was educated at Aberdeen University, where he graduated M.A.

with honours; after which he attended the medical classes at Marischal College, taking the degree of M.B. in 1866, also with honours. In the same year he became a member of the Royal College of Surgeons (England), and four years later, in 1870, the degree of M.D. was conferred upon him by the University of Aberdeen. In 1869 he received the appointment of assistant to Professor Harvey, then occupant of the Chair of Materia Medica, who still survives, and on Dr. Harvey resigning in 1878 Dr. Davidson succeeded him in the chair. Dr. Davidson held several hospital appointments, and was particularly distinguished as an ophthalmic surgeon. Dr. Davidson was about forty-one years of age.

THE ABERDEEN AND NORTH OF SCOTLAND SOCIETY OF CHEMISTS AND DRUGGISTS.—At a meeting held on Oct. 22, Mr. James Sim, of Messrs. Davidson & Sim, Castlegate, the honorary president of the Society, gave a lecture on "Insectivorous Plants," and described the methods by which these plants capture insects for their subsistence. The lecture was very interesting and instructive, and its value was greatly enhanced by illustrations. After the lecture the President referred to the death of Professor Davidson, who had been closely associated with pharmacy in the city, had, though a comparatively young man, attained the position of being at the head of the medical profession in the city. He had always taken a keen interest in the work of the Society, and had done them great service.—On October 20 a largely attended meeting of the Society was held with the object of presenting to Dr. Presslie, on the occasion of his marriage, a handsome silver drawing-room clock with ornaments. The chairman, Mr. James Sim, in making the presentation, said that when it first became known that Dr. Presslie was to take so important a step, a spontaneous wish was expressed by the members to convey to him in some tangible form their goodwill and esteem and their appreciation of his valued services to the Society. Dr. Presslie had enthusiastically helped the advancement of the Society by giving instruction in botany to their young men; to the extent even of having early morning excursions in search of specimens. The cases in that room with their numerous specimens bore ample testimony to his culture, to his indomitable energy, and to his generous labours. When they considered that as a student he held one of the most distinguished places attainable at their University, they as a Society could not but regard themselves as very fortunate in securing his services as curator, and he hoped—and he was sure that this feeling was shared by everyone present—that Dr. Presslie might still continue his services. Dr. Presslie, in an appropriate speech, thanked the members for their goodwill and for their present.

GLASGOW.

A NEW RISK FOR CHEMISTS.—The manager of one of the principal dispensing establishments in the centre of this city was called upon by a customer one morning lately at 3 A.M., who entreated him to get something for a baby which had been suddenly seized with convulsions. The manager proceeded to the shop, and began to make up the medicine, when he was interrupted by the entrance of a couple of policemen, and ignominiously run in on a charge of housebreaking. On hearing his explanations the authorities at the police office insisted on detaining him until the proprietor of the shop was communicated with. A cab was sent for that gentleman, and on his arrival the character of the culprit was of course cleared. But the authorities declined to set him at liberty until he had paid 4s. 6d. for the cab.

"DOCTOR," said a man to his physician, who had just presented a bill of \$50 for treatment during a recent illness, "I have not much ready money. Will you not take this out in trade?" "Oh, yes," cheerfully answered the doctor; "I think we can arrange that. But what is your business?" "I am a cornet player," was the startling reply.

A PALE, cadaverous-looking Irishman entered a doctor's office, and, with both hands pressing heavily his right chest, in much agitation addressed the medical man in a whisper, as follows:—"Doctor, I'm in a very bad condition; my right lung is clean gone and I have lost my voice entirely," then changing both hands to the opposite breast, he continued in a loud, clear voice, "but this lung is all right, doctor."

POST-CARD COMPETITION—No. 7.

CORRECTIONS OF THE BRITISH PHARMACOPEIA, 1885.

FOR this competition there has been a smaller number of entries than for any previous one. Nevertheless the result is, in other respects, highly satisfactory, as will be seen from the long list of corrections and additions which is appended. We are not surprised that fewer have competed on this occasion, because the conditions necessarily entailed much work, and the fact that the bulk of the lists were received during the last day or two indicates that time had pressed heavily upon the competitors.

Although the list is a long one, it will be seen that it contains comparatively few corrections of serious errors; it is in fact mainly a revision of that part of the official work which was performed by sub-editors, who, apparently, were insufficiently acquainted with medicine and pharmacy to do their work properly. Some errors of fact there are, but the large proportion of them have been previously pointed out. We have purposely kept out official corrections from the list, and corrections of processes such as would involve changes in the nature of products.

The following are the official corrections:—

. Page 109, line 35,	real As purified by solvents it is a
" 149, " 23,	for fourteen real thirteen
" 154, " last,	drachms " fluid drachms
" 164, " 11,	½ to 2 " ¼ to 1
" 176, " 35,	eight " seven and a half
" 211, " 14,	Root " Rhizome
" 213, " 21,	CH ₃ I " CHI
" 230, " 27,	17½ " 15½
" 232, " 3,	one pint " 24 fl. oz.
" 241, " 17,	1·07 " 1·047
" 249, " 28-29,	insoluble " soluble
" 379, " 27,	0·888 " 0·896
" 404, " 19,	to " in
" 416, " 10,	Root " Rhizome
" 433, " 34, }	proof " rectified
" 450, " 18,	19 " 191
" 460, " last,	8 " 7
" 190, " 6,	add Glycerine of Alum
" 164, " 16,	omit in powder

To cross references.

" 4, " 10,	add Linimentum Terebinthinae Aromaticum
" 34, " 8,	Unguentum Hydrargyri
" 57, " 17,	Liquor Atropiae Sulphatis
" 228, " 16,	Tinctura Quininae Ammoniata
" 278,	6, " Trochisci Acidi Benzocici
" 315,	24, " Emplastrum Plumbi Iodidi
" 26,	Glycerinum Plumbi Subacetatis
" 44, " 22,	omit Liquor Ammonii Citratis Fortior
" 115,	17, " Acidum Sulphuricum Aromaticum
" 314,	27, " Glyceriu
" 405,	13, for " Liquidum real Liquidum (dried)
" 31,	16, " 1 real 1½ fluid ounce
" 73,	13, " 1 real 1½ fluid ounce
" 49,	3, " 11 " 10
" 80,	25, " 6 " 8
" 26,	5 " 4
" 92,	21, " 22 " 14½
" 22,	22 " 14½
" 115,	24, " 11 " 12
" 202,	30, " 8 " 10
" 315,	20, " 9 " 10
" 331,	13, " 4 " 4½
" 355,	last, " 8 " 16

The lists sent to us contained some interesting notes, several of which we here reproduce:—

The following five new extracts are directed to be evaporated to a suitable consistence. What does this mean?—Extract belladonnae alcoholicum, cascara sagradae, gelsemii alcoholicum, jaborandi, and rhamni frangulae (A. L. Doran).

After commenting on the formula for *Liquor Morphiae Acetatis*, which, if made by grains, &c., contains 1 in 97·222, and by parts 1 in 97·083, Mr. T. Hart says:—

The alternative process (p. 249) of preparing this liquor from the injection would give a product containing too large a quantity of spirit (20 per cent. more), and the acetate of morphine would be more than 1 in 100. If the liquor is

required to be prepared from the injection, the correct formula would be:—Hypodermic injection, 87½ minims, rectified spirit, ½ fluid oz.; distilled water to produce 2 fluid oz.

The same writer makes the following comments:

Acidum Carbolicum (p. 8).—The melting-point is too low (Dott); it should be not under 40° C. (Calvert).

Aether Purus (p. 36).—The iodine test is of little or no value, as the action is due to the simple exposure of ether to the light, and all trade samples give the reaction (Werner, Branson, and Dott).

In the directions for preparing *Aqua Anethi* (p. 56), and the other "Aquea," from umbelliferous fruits, omit the word "bruised," as it is unnecessary. The oil comes over readily without (Abraham).

Elaterin (p. 137) cannot practically be obtained by precipitating a chloroformic solution with ether. The chloroformic solution must be evaporated to dryness, and then treated with ether (Jones and Ransom).

Extractum Ergotis Liquidum (p. 156) and others should be prepared by repercolation, whereby the very injurious long-continued application of heat would be obviated (Dr. Inglis Clark).

Extractum Taraxaci Liquidum (p. 170).—Process should be revised, for after macerating in the proof spirit and pressing, the product is 40 fl. oz., then an aqueous extract of 18 fl. oz. is directed to be added, when the final product has only to be 40 fl. oz. (Symes).

Pilula Phosphori.—The first three ingredients when rubbed under hot water take up one-sixth their weight of water, which is not taken into account, so on p. 310, line 13, for "½ grain" read "⅓ grain." To correct this error the balsam should be previously thoroughly kneaded and washed with hot water.

Spiritus Etheris Compositus (p. 377).—The method of preparing the ethereal oil is wasteful, as the principal product is ether, which is directed to be evaporated into space (Dott). Pereira states that ethereal oil is obtained in the later stages of the process for the preparation of ether. Cost of ingredients for producing 160 minims by the B. P. method = 6s. 3d.: cost in wholesale price-list of 3 drachms of ethereal oil = 3d.

Ung. Belladonnae (p. 444).—The first formula should have 48½ grains of extract instead of 50 grains, to make it correspond in strength to the second formula.

Page 120, line 6, for "1 oz. or 1 part," read "½ oz. or ½ part" (Conroy, Martindale, and Tichborne). The blistering collodion is a jelly if made with the B. P. quantity of pyroxylin.

These suggestions and many others of a similar nature can only be considered at the proper time. We have not incorporated any of them in the following list, for it was our intention to give only such corrections as may be noted by any pharmacist or pharmaceutical student, and more especially by the latter. To them we would advise that they should go to the expense of getting a pharmacopoeia interleaved with good ruled paper, and jot down upon it the following items, and any others which they may fall in with during their course of study:—

Page	Line	Nature of Correction
xxv	22	Add Infusum cinchonae acidum (ubrae) for Infusum cinchonae flavæ
"	32	Add Aqua laurocerasi
"	34	Omit Acidum
3	Last	Add Spiritus ammoniaci aromaticus
	15	After Oxymel scille insert 1 volume in 2 nearly; and after 1 syrup insert 1 volume in 2½
4	16 right	Add Injectio morphinæ hypodermica
"	22	" Plumbi subacetatis glycerinum
"	24	Preparation in which Acetic Acid is used — Vinum ipecacuanha
5	27	Liquor ferri acetatis fortior
7	Last	1 part in 7
8	"	Invert Official borate — Borax
"	"	Add 1 part in 19
"	"	Insert, Compounds in which Carbolic Acid is used — Soda sulphocarbolas
10	18	Zinci sulphocarbolas
11	30	Official chromate, Potassii bichromas
"	"	Add Liquor magnesii citratis
"	"	to Official Citrates — Ammonii citratis liquor
		Bismuthi et ammonii citras
		Caffeina citras
		Magnesii citratis liquor

Page	Line	Nature of Correction	Page	Line	Nature of Correction
13	13 ..	Add Sp. gr. 1·077	181	21 right ..	Add Pilula aloes et myrrae
14	Last but one ..	" Liquor ferri perchloridi	187	23 right ..	" Potassii ferrocyanidum ^o
"	" ..	" " strychniae fortior	191	11 ..	" 2½ oz. to 1 pint
"	" ..	" Tinctura ferri perchloridi	19	19 ..	" 1 part in 6 nearly
15	4 left ..	" Apomorphinae hydrochloras	192	.. ..	For 74 fluid grains read 80 minims
"	" ..	Omit Arsenici, liquor hydrochloricus ^o	196	20 ..	Add 1 part in 6
7	" ..	Add Calcii chloridi, liquor	197	Last ..	" 2 oz. to 1 pint
"	4 right ..	Cocaine hydrochloras	199	18 ..	1 in 10
"	7 ..	" Hydrargyi subchloridi, unguentum	201	34 ..	Insert Hydrargyi oxidum flavum
"	8 ..	" Quininæ hydrochloras	212	15 ..	Unguentum hydrargyi nitratris dilutum
18	13 ..	Strychniae hydrochloratis, liquor	Footnote ..	After 200 fluid grains insert (220 minims)	
"	18 ..	For 800 read 687	214	23 left ..	For 12 minims read 10 ⁴ minims ^f
"	" ..	H ₃ C ₇ HO, read C ₄ H ₈ O ₂ .3H ₂ O	23	.. ..	Insert Emplastrum plumbi iodie
19	26 left ..	Add Unguentum hydrargyi nitratris dilutum	30 ..	" ..	Liquor arsenii et hydrargyi iodidi
"	27 ..	Ammoniae nitras	30 ..	" ..	Plumbi iodidum
"	28 ..	Argenti et potassi nitras	24	right ..	Suppositoria iodoformi
"	29 ..	Cupri nitras	26 ..	" ..	Unguentum hydrargyi iodidi rubri
"	27 right ..	Pilocarpine nitras	26	left ..	Add 1 of free iodine in 9 nearly
"	22 ..	1 volume in 5½ volumes	29 ..	" ..	22 grains of free iodine in 1 fluid oz.
21	20 ..	Emplastrum plumbi, and its preparations	26	right ..	" 11 " 1 "
"	22 ..	Linimentum calcis	27 ..	" ..	" 1 grain " 1 " ½ "
"	22 ..	Sapo durus	31 ..	" ..	" 1½ " 1 "
"	" ..	mollis	215	Last ..	After the infusum add 1 ounce to 1 pint
22	19 ..	" to end of sentence, Sp. gr. 1·500	17 ..	" ..	the tintura " 5 ounces to 1 pint
"	Last ..	After Acidum phosphoricum dilutum add 1 volume in 6½ volumes	217	17 ..	Add 1 in 3½
24	18 ..	Add 1 part in 18	222	3 left ..	" ½ in 14
25	11 ..	Infusum cinchona acidum	4 ..	" ..	" 1 in 3½
"	17 left ..	Calcii sulphas	3	right ..	" 1 in 3½
"	" ..	Cinchonidine sulphas	4 ..	" ..	" about 1 in 6
"	17 right ..	Cinchonine sulphas	5 ..	" ..	" 1 in 3½
27	16 ..	Morphinæ sulphas	228	15 ..	Insert, Preparations in which Solution of Ammonia is used—
32	30 ..	For "pint" read "suitable"	41	14 ..	Ferri et ammonii citras
"	" ..	" 8 grains in 1 fluid oz." read "1 part in 60 nearly"	44	20 ..	Ferri et quininæ citras
41	14 ..	Add by weight	48	14 ..	Ferrum tartaratum
44	20 ..	" Ferri carbonas saccharata	55	29 ..	Linimentum hydrargyi
48	14 ..	(C ₆ H ₁₀ O ₅) _n	56	Last ..	Liquor bismuthi et ammon citratis
50	5 left ..	" 1 lo. to 1 gallon	67	" ..	Ammonii bromidum
55	29 ..	" 1 grain in 50 minims	68	24 ..	Add 1 volume in 4½
56	Last ..	" 1 volume in 6½ volumes	74	6 ..	" 1 " 3 nearly
67	6 ..	Omit "4 grains in 1 fluid oz."	78	29 ..	3 ..
"	27 ..	Add ½ grain in each	230	2 ..	11 ..
68	24 ..	" Vitium aurantii	4 ..	right ..	5 ..
74	6 ..	" 1 in 51	5 ..	" ..	5 ..
78	29 ..	Preparations for which Bismuth Subnitrate is used—	231	11 ..	For 79 read 78
"	" ..	Bismuthi citras	232	8 ..	Add 1 in 7
"	" ..	oxidum	233	9 ..	For 4 drachms read 10 drachms
84	22 ..	" 1 part in 6	258	12 ..	Add 12 grains in 1 pint
87	17 ..	Insert, Preparation for which Hypophosphite of Calcium is used—	262	6 ..	Insert Liquor magnesii citratis
"	" ..	Sodii hypophosphis	14 ..	" ..	Vapor olei pini sylvestris ^g
90	22 ..	Add Liquor sodae chlorinatis	259 ..	" ..	Magnesia levigata
92	29 ..	" Injectio apomorphinae hypodermica	253 ..	" ..	Preparation for which Heavy Carbonate of Magnesia is used—
"	" ..	" ergotini hypodermica	264	22 ..	Magnesia ponderosa
"	" ..	For 10 read 20	256 ..	Last ..	Insert Liquor magnesii carbonatis
108	31 ..	Add Liquor atropinae sulphatis	265	16 ..	Add "and in preparing perchloride of mercury"
109	22 ..	" 1 in 28	273	9 ..	For C ₆ H ₅ (HO) ₂ , read C ₆ H ₅ (HO) ₂
98	18 ..	" Pulvis cretae aromaticus	276	22 ..	Add 1 volume in 2
103	21 ..	" 1 in 4½	281	Last ..	Insert, Preparations for which Hydrochlorate of Morphia is used—
"	" ..	For CeC ₆ O ₄ , 3H ₂ O read Ce ₂ (C ₂ O ₄) ₃ , 9H ₂ O	285	6 ..	Inj. morphinæ hypodermica
108	15 ..	Insert Quicksilv. ½ oz.	286	21 ..	Liquor morphinæ biureconatis
109	23 ..	Preparation containing Chloroform—	290	12 ..	Morphinæ acetas
"	" ..	Liquor gutta percha	291	20 ..	" sulphas
110	10 ..	Add 1 part in 25	293	Last ..	Add 5 minims for each inhalation
"	33 left ..	" 1 oz. in 1 fluid oz.	294	17 left ..	" 10 minims in 35 grains
"	right ..	" 2½ oz. to 1 pint	18 ..	" ..	" 1 volume in 40
116	14 left ..	" 1 oz. in 1 fluid oz.	19 ..	" ..	" 1 volume in 1½
117	6 ..	" ½ grain in each	18 right ..	" ..	" 1 volume in 2½
126	Last ..	" 12 minims in each inhalation	19 ..	" ..	by weight 1 in 2 nearly
127	24 ..	For 32 read 34 ^h	297	7 ..	Insert Acidum miconicum
128	18 ..	" 15 read 16	13 ..	" ..	Apomorphinæ hydrochloras
137	Last ..	Add 1 part in 40	20 ..	" ..	" injectio hypodermica 1 grain in 10 minims
144	6 ..	Emplastrum belladonnæ	31 ..	" ..	Morphinæ, injectio hypodermica 1 grain in 10 minims
145	Last ..	" to the emplastrum "1 part in 5"	33 ..	" ..	Suppositoria morphinae sapone ½ in each
147	5 ..	" 1 " mungentum "1 " 10"	33 ..	" ..	Tinctura chloroformi et morphinæ 1 grain in an ounce
150	Last left ..	" 1 in 3 by weight	303	5 ..	Preparation in which Phosphorus is used—
"	right ..	" 1 in 5	.. ..	" ..	Calciij hypophosphis
160	27 ..	Insert, Preparation for which Extract of Jaborandi is used—			
"	" ..	Pilocarpine nitras			
166	7 ..	Add 1 oz. in 4 fluid oz.			
172	32 ..	For "ferrocyanide" read "ferricyanide"			
179	3 ..	After grain insert "anhydrous"			
"	Last ..	Insert, Preparations for which Sulphate of Iron is used—			
"	" ..	Perri arsenias			
"	" ..	Perri carbonas saccharata			
"	" ..	Perri phosphas			
"	" ..	Mistura ferri composita			
180	17 ..	Insert, Preparation for which Granulat-d Sulphate of Iron is used—			
"	" ..	Syrupus ferri phosphatis			

* This is not a solution of arsenium chloride, but of arsenious oxide in acidulated water.

† On page 1 it is given 1 in 34. It is 1 in 33 nearly.

* Would more appropriately come under Preparation in which Iron is used.

† The old formula was calculated on "anhydrous" acetate

‡ This is a preparation containing magnesia rather than a preparation of magnesia.

Page	Line	Nature of Correction	Page	Line	Nature of Correction
303	3 right ..	Add 4 grains in 1 fluid oz.	422	25 ..	Add 1 fluid drachm to each inhalation
"	4 ..	" 1 in 90	427	Last ..	After Enema opii add $\frac{1}{2}$ fluid drachm to 2 fluid oz.
304	9 ..	" $\frac{1}{100}$ grain in each	436	10 ..	Linimentum opii add 1 volume in 2
313	26 ..	" 5 in 7	"	30 ..	Add nearly
314	21 ..	" 5 oz. to 1 pint	448	3 left ..	" 3 in 20
"	25 ..	" Strychnina	"	right ..	" 1 in 3 (by weight) nearly
315	7 ..	" Preparation for which Carbonate of Lead is used—	"	4 ..	" 5 grains in each
		Liquor gutta percha	"	4 ..	" 1 in 2½
316	14 ..	Glycerinum plumbi subacetatis	Footnote ..		For about 15 read 12½
319	2 left ..	Alumen	449	18 ..	Add 1 in 3
"	8 left ..	" exsiccatum	457	10 ..	For 200 grains read about 200 grains
"	14 ..	Glycerinum aluminis	466	Last ..	Add Liquor zinci chloridi
"	22 ..	Liquor magnesi citratis	468 ..		Oleatum zinci
"	21 right ..	Pilula ipseeacuahue eum scilla	471	31 ..	Insert Calamina preparata
"	23 ..	Tinctura iodi	"	33 ..	Unguentum calamine
320	22 ..	Vapor econiae	492	6 from bottom ..	Aqua laurocerasi, 810 = 150 or 810 = 150
324	17 left ..	Add 28 grains in 1 ounce	494	25 ..	Spiritus ammoniae aromatics, 392 = 558 or 392 = 558
"	18 ..	Insert Ether acetieus	495	Aeid lactie dil.	For 800 read 687, and for 800 read 687
"	20 ..	Bismuthum purificatum	496	24 right ..	Add Spiritus ammoniae aromatics
"	23 right ..	Iodoformum	497	18 ..	Insert Didymum : : : D = 147 *
325	34 ..	Unguentum potassium iodum	"	22 ..	Lanthanum : : : La = 139 *
329	16 ..	For K ₂ C ₆ H ₅ O ₇ read K ₂ C ₆ H ₅ O ₇ , H ₂ O	"	32 ..	Selenitum : : : Se = 79 †
345	Last ..	16 read 14½	"	35 ..	Tellurium : : : Te = 128 †
346	22 ..	16 read 14½	524	40 ..	Gamboge, compound 306
347	16 ..	" " 14½ fluid oz.			
"	27 ..	" 3 oz. to 10 fluid oz.			
348	5 ..	" 1 in 3			
"	Last ..	1 oz. dried petals to 17 fluid oz.			
350	4 ..	C ₁₂ H ₂₂ O ₁₂ read C ₁₂ H ₂₁ O ₁₂			
354	14 ..	1 in 19			
"	15 ..	1 in 7 fully			
"	16 ..	1 in 6			
"	17 ..	1 in 8 nearly			
"	18 ..	1 in 7 "			
"	19 ..	1 in 3 "			
"	20 ..	1 in 3 fully			
"	21 ..	3 in 4 nearly			
"	22 ..	5 in 9 "			
"	23 ..	2 in 3 "			
355	3 left ..	1 oz. to 11 fluid oz. nearly			
"	4 ..	1 in 4			
"	5 ..	"			
"	6 ..	"			
"	3 right ..	1 in 3 nearly			
"	4 ..	1 in 8 "			
"	5 ..	2 in 3 "			
"	6 ..	1 in 6 "			
359	3 ..	Omit nearly			
362	24 left ..	1 in 6 nearly			
"	right ..	1 in 3			
366	10 ..	Add, Preparation for which Arseniate of Sodium is used—			
		Ferri arsenias			
"	Last ..	Preparations for which Bicarbonate of Sodium is used—			
		Ferri arsenias			
		phosphas			
		Syrupas ferri phosphatis			
368	17 left ..	Insert Antimonii oxidum			
"	" ..	Bismuthum purificatum			
"	" ..	Calci carbous precipitata			
"	19 left ..	Liquor magnesi carbonatis			
"	" ..	Magnesi carbonas levis			
"	19 right ..	ponderosa			
"	" ..	Sodii hypophosphis			
"	" ..	" salicylas			
"	" ..	sulphas			
"	" ..	sulphis			
"	" ..	suphoarbolas			
"	" ..	Zinci carbonas			
"	" ..	Sodii carbonas			
369	13 ..	For dissolved in read added to. *			
376	6 ..	Add 22 grains to 1 fluid oz.			
"	9 ..	Insert Glycerinum boracis			
"	21 left ..	" Mel boracis			
"	31 ..	Pilula phosphori			
"	34 ..	Suppositoria acidi carbolici eum sapone			
"	12 right ..	" sciammonii composita			
"	34 ..	" Suppositoria acidi carbolici eum sapone			
"	" ..	" tannici " "			
383	27 left ..	For Ammonia read ammoniata			
"	28 ..	Add, Tinctures containing Rectified Spirit—†			
		Tinctura chloroformi et morphine			
		" kino			
		" nucis vomicae			
385	7 ..	1 volume in 2½			
"	17 ..	1 to 2			
388	24 left ..	1 in 14½			
"	right ..	6 minims to each inhalation			
389	—	Insert "Succus limonis" and "Succus mori," and modes of preparation thereof			
391	9 left ..	Bismuthum purificatum			
"	10 right ..	For sublimatum read precipitum			
405	13 ..	Add 1 oz. to 1 fluid oz.			

* The one term is about as bad as the other. We prefer the official phrase, as the preceding sentence removes any doubt as to the sodium being soluble as such in water.

† Tr. opii ammon. might be added to this list.

* These metals may occur in oxalate of cerium as impurities.

† Tests for these bodies are given under bismuth.

The foregoing list comprises 303 different corrections and additions. Of this number Mr. A. Mander, 87 Regent Street, Leamington, has given 131, and Mr. Thomas Hart, 10 St. John's Terrace, Darlington, closely follows with 126, to both of whom we award one guinea, the latter having sent many important corrections which were omitted by all others. Mr. J. Lenton (Hastings) sends an excellent list, containing, exclusive of the 43 official corrections, 119 items; while Messrs. A. L. Doran (Bray); J. Wharton (Great Grimsby); W. F. Billyard (Boston); A. H. Hinde (Shepherd's Bush); G. W. Kendall (St. Albans), and A. Reith (Aberdeen), are also deserving of commendation for their excellent compilations.

Personalities.

MR. GEO. SHEPPERLEY, Market Place, Nottingham, wishes to make it known that he is not the Mr. Shepperley, of Nottingham, named in our last as one of the first subscribers to the "Fairfield Laboratory Company, Limited."

MR. JAMES DOUGLAS WATSON, manufacturing chemist and druggist, of Glasgow, has invented a new style of ventilation of rooms through the ceilings, with a self-acting apparatus preventing any back current draught. This is said to be of great service where gas is used, or for smoking-rooms.

IN the person of Professor Frederick Guthrie, President of the Physical Society, learning, science, art, and literature have lost, says the *World*, an able ally. But I take it that he will be mourned chiefly on other grounds. While his important papers on cryohydrates and other abstruse branches of physics are remembered by the scientific world, his jokes and genial jollity will be recalled by many of his old companions. When he held the chair of chemistry at the Royal College, Mauritius, two of his brother-professors, the one of classics, the other of drawing, were Walter Besant the novelist, and John Parker, of the Royal Society of Painters in Water-Colours. In the long years that have elapsed since that time both these well-known men have been amongst his closest friends. Professor Guthrie was taken ill with what at first seemed to be sore-throat, at the beginning of last July. The sore-throat turned out to be no less terrible a disease than cancer, of which he died on the 21st inst. at the age of fifty-three. He leaves a young wife, and a grown-up family by his former marriage.

GOLD MEDALS were awarded at the Liverpool Exhibition to Messrs. J. S. Fry & Sons, of Bristol, for the excellence of their cocoa and chocolate manufactures, and to Spratts Patent Limited for superior excellence in the manufacture of their biscuits, including special mention of the quality of their cabin biscuits.

EDINBURGH EXHIBITION.

THE jurors' awards were issued on Tuesday. Out of 2,221 exhibitors (exclusive of those in the Fine Art Section) awards have been made to 1,058. The following is a list of exhibitors more or less connected with pharmacy who have received recognition for their displays.

D= Diploma of honour.

G= Gold medal.

S= Silver medal.

B= Bronze medal.

H.M.= Honourable mention.

Alexander, R., & Son, Edinburgh.—Curry, chutney, and sauce (S.).
 And, W. Wallace, & Co., Edinburgh.—Excellence of fluid beef (S.).
 British and Foreign Mineral Water Co., Glasgow.—Mineral waters, artificial mineral and aerated waters (G.).
 Broxburn Oil Co., Glasgow.—Burning oils and shale products (G.).
 Brunner, Mond & Co., Norwich.—Excellence of manufacture of pure alkali (G.).
 Bell Brothers (Lim.), Middlesborough.—Excellence of manufacture of soda by ammonia process (S.).
 Burgoyne, Burbridge, Cyriax & Farries, London.—General excellence of exhibit (S.).
 Burntisland Oil Co., Edinburgh.—Burning oils and shale products (S.).
 Burroughs, Wellcome & Co., London.—Excellence of manufacture of pharmaceutical products (S.).
 Baildon, H. C., & Son, Edinburgh.—General excellence of exhibit (B.).
 Bergendal, Davis & Co., Newcastle-on-Tyne.—Bokol (B.).
 Borwick, E., Sheffield.—Forging and grinding surgical instruments (B.).
 British Sanitary Co., Glasgow.—Whole exhibit (B.).
 Bush, W. J., & Co., London.—Excellence of pharmaceutical preparations (B.).
 Bryce, A. S., Glasgow.—Mixed oils (H.M.).
 Calvert, F. C., & Co., Manchester.—Excellence in manufacture of carbolic acid, and preparations containing it (G.).
 Cantrell & Cochrane, Dublin and Glasgow.—Ginger ale (S.).
 Carr, W. Gratam, & Sons, Berwick.—Extract of malt and cod-liver oil (S.).
 Corrie, Wm., & Co., Belfast.—Aerated water (B.).
 Distillers' Co. (Lim.), Edinburgh.—Squire's patent bakers' yeast (S.).
 Duncan, Flockhart & Co., Edinburgh.—General excellence of pharmaceutical products (G.).
 Duncan, Flockhart & Co., Edinburgh.—Aerated mineral waters (S.).
 Dick, Dundas & Co., New York.—Excellence of menthol (S.).
 Dougal, Geo., & Son, Linlithgow.—Excellence of soap (S.).
 Dunbar, James, Edinburgh.—Lemonade and ginger-beer (S.).
 Ferguson, Alex., & Co., Glasgow.—Paints and varnishes (G.).
 Field, J. C. & J., & Co., London.—Decorative candles and soap (G.).
 Fleming, A. B., & Co., Granton.—Rosin and solidified oil (S.).
 Fletcher, Thomas, Warrington.—For excellence of exhibit of gas-heating apparatus (S.).
 Fischer & Schmitt, Germany.—Exhibit of gelatine and glue (B.).
 Fairgrieve, Thomas, Edinburgh.—Pharmaceutical preparations (H.M.).
 Forbes, J., & Co., Wick.—Excellence of cod-liver oil (H.M.).
 Garroway, R. & J., Glasgow.—Excellence of manufacture of chemicals (G.).
 Henderson, N. M., Broxburn.—In recognition of his high merits as an inventor in connection with the shale industry (G.).
 Hall, Dunbar & Co., Leith.—Paints and varnishes (S.).
 Hendrie, H., & Co., London.—Toilet brushes (S.).
 do. do. Soaps and perfumes (B.).
 Hutton, Andrew, Edinburgh.—Furniture polish (B.).
 Haynes & Finنمore, London.—Essences (H.M.).
 Isdale & McCallum, Paisley.—Excellence of soaps (S.).
 Johnston, John, & Co., Liverpool.—Excellence in manufacture of washing blue and black lead for domestic purposes (B.).
 Kent, G. B., & Sons, London.—Toilet and other brushes (G.).
 Kiunear, James, Aberdeen.—For improved artificial limbs (B.).
 Kerr & Brown, Edinburgh.—Exhibit of oils, isinglass, &c. (H.M.).
 King, Mark, Leith.—Botanical specimens (H.M.).
 Lever Bros., Warrington.—Machine and process of stamping soap (B.).
 Linlithgow Oil Co., Edinburgh.—Burning oils (B.).
 Linton, R. T., Edinburgh.—Gums and varnishes (B.).
 Mackay, Jno., & Co., Edinburgh.—Calves' feet jellies and essences (G.).
 M'Arthur & Jackson, Glasgow.—Mixed oils (S.).
 Maiguen, P. & J., London.—"Filtre rapide" (S.).
 Milton Chemical Co., Glasgow.—Excellence of soaps (S.).
 Maclean & Son, Edinburgh.—Revalenta (B.).
 Normal Co. (Lim.), London.—Excellence and importance of their exhibits of meat, fish, and vegetable extracts, soups, fish, oils, &c., and as a recognition of their having introduced new valuable additions to the food supply (G.).
 Ogston, Alex., & Sons, Aberdeen.—Excellence of soap and candles (G.).

Patterson's Chemical Manufacturing Co., Glasgow.—Excellence and cheapness of malt extract (S.).

Pumperton Oil Co., Glasgow.—Burning oils and shale products (S.).

Purvis, Samuel, Edinburgh.—For collection of beautifully prepared and mounted microscopic slides (S.).

Pierre, Dr., London.—Excellence of tooth powder (B.).

Rein, F. C. & Son, London.—Excellence and originality in acoustical instruments (G.).

Rylands, Daniel, Barnsley.—Whole exhibit of aerated-water machinery (G.).
 Reynolds, E. B., Auckland.—Kauri gums (S.).

Rose, L., & Co., Leith.—Lime juice and lime-juice cordials (B.).

Robertson, James, & Co., Edinburgh.—General pharmaceutical exhibit (H.M.).

Spence, Peter, & Sons, Manchester.—Excellence of manufacture of alum (G.).

Stewart, G. & Co., Edinburgh.—Sealing-wax (G.).

Sutherland & Abercrombie, Glasgow.—Excellence of soaps (S.).

Swift, James, & Sons, London.—Microscopes, and especially excellence of mechanism (S.).

Sandeman, J., Glasgow.—Rosin and solidifying oils (B.).

Silicate Paint Co., London.—Paints (B.).

Stephenson Bros., Bradford.—Furniture cream (B.).

St. Mungo Chemical Co., Glasgow.—Paints (H.M.).

Turner, Chas., & Son, Loudon.—Paints and varnishes (G.).

Van Honten, C. J., & Zoon, Holland.—Cocoa (G.).

Verbeek & Peckholdt, Germany.—Excellent chemical balances of constant sensibility (S.).

Waterston, George, & Son, Edinburgh.—Sealing-wax (G.).

Wigan, Henry, & Co., London.—Exhibit of gelatine and glue (S.).

Wolfsebmndt, A., Riga, Russia.—Riga kummel liqueur and Riga balsam of herbs (S.).

Wright, Leekie, & Co., Glasgow.—Pepper and spices (H.M.).

Wylie, D. N., Edinburgh.—Quality and cheapness of insect powder (H.M.).

Yorkshire Varnish Co., Ripon.—Varnishes and paints (S.).

Yool, W., Graham & Co., Leith.—Mixed oils (H.M.).

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

THE opening meeting of the ninth session was held in the House of the Pharmaceutical Society, 36 York Place, Edinburgh, on the evening of Tuesday, 26th inst., at a quarter past nine, Mr. William Duncan, President, in the chair. There was a large attendance of members. The minutes of last meeting having been read, the Chairman proceeded to deliver the

INAUGURAL ADDRESS.

After expressing his appreciation of the action of the members in appointing him to the honourable and responsible position of President of the Association, Mr. Duncan proceeded to refer to the steady progress which the Association had made since it was started eight years ago, until now it is in the front rank of British pharmaceutical associations. He trusted, however, that their efforts would not be relaxed nor enthusiasm abated. On all sides at the present moment we hear, he said, that pharmacy is going to the dogs, and that its sweets are not worth the energy expended in qualifying; but the man who qualifies himself in the true sense of the word never has occasion to regret his so doing. He deprecated the practice of young men rushing into business on their own account too early, and said, apart from references to the importance of a good commercial training, that very few feel they are qualified by the possession of the bare amount of knowledge required for the Minor. We would call the merchant a fool who buys his spirits on trust, and never satisfies himself as to the purity of the article or the percentage of alcohol it contains; yet how many chemists estimate their citrate of iron and quinine, or prove that their scammony really answers the tests of the Pharmacopœia? The same remarks apply to other important medicines. It might be said, he remarked, that one buys from a respectable wholesale house, whose preparations can be depended on. Very good; but they also are liable to be careless. It should therefore be every conscientious chemist's aim to apply the pharmaceutical tests. Many of those who have passed the Minor only have not the skill, but those who have studied for the Major examination are capable of satisfying themselves regarding the purity; while, at the same time, they

possess a feeling of satisfaction that they have gained a little more knowledge than is absolutely necessary for legal qualification.

I cannot help thinking, he continued, that the Pharmaceutical Society made a great mistake in not making the Minor the qualifying examination for assistants only, and the Major the examination for opening shop. Pharmacists would have been much better to-day, both in social position and in knowledge, if such had been the case. But as the more honour attaches to those who gain this qualification while as yet it is not compulsory, let me impress upon you the necessity of striving to obtain it. The study is a pleasure, giving a knowledge of the sciences such as to understand them intelligently, and which alone repays the trouble a hundred-fold, while the mental discipline is invaluable. It is an examination which is preferable in every way to the Minor. No green extract suppositories or refractory pill-masses hover round to trip up the candidate who aspires to the honour, sending him back to his books for another three months; and the absence of these trifles Minor men can appreciate.

Mr. Duncan then gave a word of advice to those who have passed the Major, calling upon them to continue the study of some one of its subjects in which they had been specially interested, and to make a hobby of that subject.

Referring to microscopy as a neglected subject, he said that this neglect is caused in part by the mistaken idea that an expensive instrument is necessary for its prosecution. This is a ridiculous idea; indeed, a large proportion of the great outcomes of microscopical research have been made by instruments which would nowadays be generally condemned for scientific work. No one can study botany thoroughly who does not possess a microscope. A cheap instrument and a sharp knife will do more towards helping a student of botany in acquiring a knowledge of the science than ten times the amount of reading. In the detection of adulteration in drugs, in preparing the mind for the exercise of its powers in any direction whatever, the microscope is a most important factor. In order to stimulate members of the Association to take up this subject earnestly, he proposed that some of the surplus funds should be awarded as a prize to the member who presents the best mounted specimens of official drugs.

After referring to the prize schemes of the Association, which have been a source of great benefit to its apprentice members, the botanical excursions which were instituted this summer, and the herbarium which has been started as a result thereof, Mr. Duncan concluded an able and interesting address by appealing to the members to enter heartily into the work of the session.

On the motion of Mr. W. Wood Ainslie, Vice-President, a cordial vote of thanks to Mr. Duncan was passed with acclamation.

Mr. William Gilmour expressed his great pleasure at being present, and the lively interest which he took in the proceedings and welfare of the Association. He had listened with much satisfaction to the able address of Mr. Duncan, which had the true scientific ring about it, and he cordially commended the high standard of knowledge which he had set before them. The address contained many points which the members would do well to ponder thoroughly. He was pleased to see members invited to cultivate the habit of careful observation, which was of the highest importance, and, as an examiner, he had frequently been filled with regret and disappointment to find large numbers of the young men who came before him making a poor appearance from the fact that they had failed to acquire this valuable habit.

The discussion was continued by Messrs. Boa, Coull, Dunlop, Henry, Hill, Jack, Lunan, Macdonald, Stephenson, and Turnbull, and it was remitted to the Committee to consider and report in regard to the prize for microscopic sections.

Some notices of motions for next meeting having been given, the meeting adjourned.

"DID you go for a vacation this summer, Smith?" "Oh, yes." "How did you manage your business affairs?" "I took my advertisement out of the paper until I returned, so there wasn't any business to manage. Great scheme, eh?"—*Harper's Bazaar.*

THE BREWERS' EXHIBITION.

FOR the eighth time the national exhibition of machinery, appliances, and produce used by brewers and kindred manufacturers was opened at the Agricultural Hall, Islington, the display of exhibits and new features being of a kind which indicates that the venture is one which is appreciated. To the exhibition manufacturers of aerated-water apparatus and manufacturing chemists have always sent in their contributions, and on the present occasion the displays which are made are quite up to the former standard. One of the most interesting features of the show is

THE MUSEUM OF BOTTLES,

and curiosities of bottle manufacture, originated and carried out by Mr. F. Foster (Barnett & Foster). The principal contributors to this are Messrs. A. Alexander & Co.; Kilner Bros.; Barnett & Foster; A. & R. Thwaites & Co.; Vidie; Davenport & Co.; J. H. B. Denison; N. Paul & Co.; Machel Smith & Co., of Hull; Blockside & Co., of Birmingham; Vanes, of Birmingham, and others. The oldest bottle shown is the "leather bottle," 250 years old, from "The Old Leather Bottle," Charles Street, Hatton Garden, a most curiously-shaped vessel, which no doubt had done good service in its day. The wine-flask from which the Duke of Wellington imbibed a cheering draught immediately before the Battle of Waterloo is shown as a specimen of what the bottling fraternity has done to maintain the supremacy of Britain. The flask is a heavy globe-shaped brown glass bottle of about a pint capacity; it is now much the worse for wear. Messrs. Machel Smith & Co. are its custodians. Of soda-water bottles, all the forms which have been produced since 1800 are represented. At that date the bottle used was strongly made of black glass, and of 12-ounce capacity. Ten years later the potash bottle had assumed the shape and colour of glass, with which we are now familiar, the only advance made being in the better finishing of the neck. The various attempts which have been made from time to time to produce an efficient internal stopper, whereby the pressure of the gas should close the bottle effectually, are shown in a score or two of specimens. The first experimenters appear to have contented themselves with making a projecting ridge on the inside of the neck, the stopper being a ring of cork, with a piece of glass or metal in the centre. The puzzle with these earlier attempts is to determine how the stopper got into the bottle. From this primitive arrangement progress was gradually made, until the invention of Codd's patent glass-ball stopper, and later, the "Eclipse" stopper (Foster), with the ingenious device for dispensing with external pressure in opening. The various stages of development of the modern syphon are also shown. Originally, we gather from the specimen shown by Davenport & Co., Holborn, the syphon had a hinged metallic cap. The vessel itself was filled with water, in which bicarbonate of soda was dissolved, and the acid was placed in the cup-shaped cap, which was then closed down and secured, the contents after a time being drawn off in a way much similar to that now followed; with this exception, the syphon is practically of the same form as that in use at present. Amongst the curiosities was a small (2½ oz.) bottle of Carrara water, which was bottled by Thwaites in 1850. Though time-worn, the bottle and cork are still as good as ever, and the specimen shows that wiring then was as it is now. There are numerous curious forms of glass-ware of modern make, and a wag has contributed a veritable English-manufactured glass battery jar, thus quietly giving a dig to the ubiquitous German. A very valuable document fitly finds a place in the museum; this is Hamilton's original patent for soda-water, an immense scroll of parchment in elaborate calligraphy, which shows that the patent was entered in the High Court of Chancery, and was sealed on October 3, in the fifteenth year of the reign of George III. The seal which is attached is about 6 inches in diameter. We may state that the profits derived from the museum are to be devoted to charitable purposes.

THE EXHIBITS.

On entering the hall the first exhibit to attract attention is that by Messrs. Barnett & Foster, which is chiefly composed of soda-water machinery. A large section of it, however, is devoted to carbonating and bottling apparatus for beer and

other alcoholic liquors (Foster's patent). This ingenious and economical departure from the old-fashioned system of maturing liquors may be briefly described. In the first place the liquor is conveyed to the carbonating cylinder, where fermentation is entirely stopped by depriving it of air: the force which does this afterwards forces carbonic acid gas into the liquor. It is then conveyed to the bottling apparatus. There are several forms of this, the most interesting one being "The Challenge" for screw-stoppered bottles. This machine holds the stopper over the bottle while it is being filled, and as soon as that is done the stopper is lowered and securely inserted in its place by means of a winch handle. This system of bottling enables the liquors to be used at once, thus effecting incredible saving in plant, storage, and labour. The same makers showed their "Eclipse" filling apparatus for patent bottles. This machine syrups, fills, and drops the bottles upon an inclined plane at one operation, so that the cost of manual labour is reduced to a minimum. It is so constructed that the syrup pumps can be thrown out of action if desired. We noticed that Barnett & Foster use only liquefied carbonic acid. This is imported in strong cylinders from Germany, where it is condensed at the gaseous springs. Mr. Foster considers that the liquefied acid is destined to replace ere long whiting and sulphuric acid. It is cheaper, cleaner, and always ready for work.

Close by this exhibit was an excellent assortment of machines and goods from Messrs. Bratby & Hincliffe. Apart from their well-known aërating and bottling apparatus, the centre of attraction in the firm's exhibit was the "Lightning" bottle-washer, and Abbott's patent wiring machine. The bottle-washer is adapted for all kinds of bottles, except those with patent stoppers. The cleaner consists of a revolving scraper, made of two pieces of rubber, fixed upon springs, which fit into a tube, and adapted to be compressed so as to enter the mouth of the bottle and to expand automatically as they reach the enlarged parts. While the scraper revolves water is automatically supplied to the interior of the bottle by means of the tube referred to. The washer works with lightning rapidity. Abbott's wirer is of very complicated construction, and no intelligent description of its parts is possible. The actual working is, however, perfectly simple. There are four bobbins of wire, the ends of which are conveyed to one end of the machine. Two wires in the centre are for wiring down the cork, and one at each side passes round the neck, securing the horizontal wire thoroughly. In operation the corked bottle is pressed upwards upon the central wire, simultaneously a lever is moved which causes the side wire to proceed round the neck, fix the horizontal wires, and at the same time another action makes the twist, cuts the wire, and presses the ends close to the bottle. When the bottle is withdrawn and the lever released the wires are found ready for another operation. The firm also exhibit their new "Monarch" turnover filling-machine and a large variety of apparatus, including a complete set of boiling and cooling pans for making syrups. These are of elegant appearance; indeed, the firm evidently give special attention to turning out apparatus combining strength, utility, and artistic appearance. The stand also included a complete line of syrups, chemicals, and other accessories used in the trade.

Mr. Dan Rylands, of Stretford Road, Manchester, has an excellent exhibit of machinery, bottles, &c., which is arranged in a careful manner, so that visitors may inspect with perfect freedom. Amongst the machinery, McEwen's various patents should be carefully examined. We have so recently spoken of these in our reports of the Edinburgh Exhibition that further mention of them in this report is unnecessary. The bottles which are shown by Mr. Rylands are those, for which he is specially noted, the self-opener valve being perhaps that which will prove to be most useful.

A number of the leading manufacturing chemists who make a specialty of essences are to the front with well-arranged exhibits, while much of the space of the enclosed stalls is devoted to practical provings of the excellence of the goods which the firms produce.

Messrs. W. J. Bush & Co., who have just received a high award from the Liverpool Exhibition jurors, make a large display of essential oils and soluble essences for confectioners and aërated-water manufacturers; also an assortment of the harmless vegetable colours made by them. Judging from the comparison of a good sample of French carmine with that made by the firm, there is no reason why we should

cross the Channel for this article. The ginger-ale essence and other soluble and fancy essences, for which the firm is noted, are fully displayed outside and inside the stall.

Messrs. Stevenson & Howell have an artistically designed stall, the centre of each of the sides being surmounted by a broken-circle head-piece, within which an essence of lemon copper is fixed. The same artistic taste which is displayed on the structure of the stall is evident in all the goods which the firm exhibit. We had an opportunity of examining the more important of them, and, in paying particular attention to the soluble essences, noticed that, while the natural flavours of the various aromatics were retained, they mixed with sparkling brilliancy in water and other liquids used in aerated beverages.

Several provincial firms have good exhibits. Amongst these were Messrs. Duckworth & Kirtlan, Manchester. The specialty of this firm is the "Premier" ginger-ale extract, a preparation which affords a beverage closely resembling the Dublin one, and which the makers claim to have the peculiar property of preserving the water, and to improve in flavour with age, like "good old wines."

Mr. W. Meadowcroft, of Blackburn, whose preparations have deservedly taken a good place in the market during the past few years, showed essences, chemicals, and apparatus. Half an ounce of Mr. Meadowcroft's ginger-ale essence is sufficient to flavour thirteen dozen "splits" of ginger-ale, giving at the same time a solution which is free from cloudiness.

Although the price of citric acid has now reached a ridiculously low figure, the exhibit by Messrs. Hassall & Co. of their phosphocitric acid seemed to be a standing proof that that acid has not altogether attained its popularity on the ground of cheapness alone. The exhibit was neatly arranged, and visitors appeared to be eager to put the acid to test.

Among the other exhibitors may be especially mentioned M. Durafort, of Paris, who had sent samples of his well-known syphons and gazogenes. Mr. J. Galloway, Bolton, has a varied exhibit of aerated water apparatus, including the neat "Lilliputian," which bottles 100 dozen an hour; and there is a larger number of water-filters in the show than might be expected in a brewers' exhibition. Foremost among them was Mr. Maignen, with his ingenious filter and water-softening apparatus; the London & General Water Purifying Company, who exhibit their patent house-cistern filter in action; Rawlings' patent filter, which may also be attached to the cistern so as to purify the water which is distributed to the whole house; and the latest comer into the field, the "Queen" filter, which has been patented by the inventor, Mr. C. E. Gettins. This is an ingenious arrangement, of which we shall have more to say on another occasion.

There is no lack in the Exhibition of subsidiary trades, patent tills being particularly prominent. The second Brewers' Congress was held on Tuesday and the three succeeding days, and on Thursday afternoon a congress of mineral-water manufacturers was held.

Obituary.

[*Notices of Marriages and Deaths are inserted free if sent with proper authentication.*]

ADAMS.—On September 30, Mr. James Henry Adams, chemist and druggist, Salcombe. Aged 51.

BOOTH.—On October 4, Mr. Samuel Booth, chemist and druggist, Broadbottom. Aged 74.

FENWICK.—On October 24, at 32 Bute Terrace, Strathbungo, Glasgow, Mary Robertson, wife of John Fenwick, chemist, Strathbungo.

GOWANS.—On October 25, at 6 St. Leonard's Bank, Perth, Mr. John Bruce Gowans, chemist and druggist. Aged 28. The deceased was the eldest son of Mr. James Gowans, chemist, in that city.

JOCE.—On October 14, Mr. James Joce, chemist and druggist, Bideford. Aged 77.

MCNAY.—On October 23, suddenly, at Medical Hall, Thornhill, Mr. John McNay, chemist. Aged 65.

SMITH.—On October 12, Mr. William Charles Smith, chemist and druggist, Hammersmith, London. Aged 55.

ANCIENT HINDOO PHARMACY.

FROM a paper in the *Archiv der Pharmacie* we extract the following interesting notes on medicine and pharmacy as practised by the ancient Hindoos. This race, it is well known, presented high intellectual attainments, which, together with the fact that Indian fauna and flora are peculiarly rich, is probably the reason why they have left in their writings distinct traces of intimate acquaintance with the science of medicine. In the Vedas, notably in Rig-Veda, Samu-Veda, and Atharva-Veda, we have many interesting facts regarding their modes of treatment, and these indicate, what we would expect, that much of the efficacy of the remedies employed was attributed to the religious and other ceremonies which accompanied the preparation and administration of physic. The holy Soma (*Asclepias acida*), for example, had the credit of being the basis of the most efficacious remedies, and it was said to drop from the celestial fig-tree in the Himalayas. The physicians formed a distinct caste, called *Vaidya*, and were esteemed almost as highly as the Brahmins. Migasthems, ambassador of Silenus Nicator (300 B.C.), states, from personal observation, that the Vaidya method of treatment consisted as much in regulation of diet as in administering physic. It is not the case that they derived their knowledge from Grecian sources, for until 327 B.C. there was no direct communication between the two countries except isolated journeys by early philosophers (such as Scylax, about 515 B.C.). There is no mention of the Grecians in the Vedas. But it is possible that knowledge of Hindoo medicine may have come to the Grecians through the Persians. It is noteworthy, too, that translations from the Vedas exist in Tamul, Tibethan, Arabic, and Persian works; also through the Tibethan into Sanscrit, in which language medical literature holds high rank.

Pupils of the Vaidya were received at the age of 12, and their curriculum lasted for 5 or 6 years. Their admission, which took place in the winter season and at full moon, was attended with elaborate religious ceremonies. The instruction given consisted of lessons in minor surgery, such as bandaging and elementary anatomy, performed on dummies consisting of various fruits and wax-coated models; and the preparation and proper uses of medicinal agents, which we may put down as *materia medica* and *pharmacy*. Under practice of physic, such subjects as antidotes, mental diseases, diseases of women and children, and external treatment had a place; pathology and chemistry were also, to a limited extent, included in the required knowledge of the accomplished physician.

In surgery they were remarkably proficient, and had as many as twenty different kinds of surgical knives. Cupping, the actual cautery, and the clyster bag were familiar to them, as were also leeches, of which they had twelve varieties. The escharotics which they used appear to have been potash in different stages of carbonisation (*mite*, *medioce*, and *acre*). These were prepared by burning various plants, such as *Butea frondosa*, *Terminalia Bellerica*, &c., treating the ashes with urine or water and evaporating. Internal remedies were divided into the *mobile* and the *stable*. The former included all animals, and the latter plants, minerals, and earthy matters. These were further divided into 37 classes, according to the ailments for which they were used: the majority, over 600, were of vegetable origin, and *asafoetida* was the only imported remedy.

All plants were gathered, as they were administered, with definite religious ceremonies, and under certain rules and planetary influences. The list of crude drugs (roots, barks, &c.) used is too long for repetition here. It comprised most of the drugs which are described by Dr. Dymock in his able work on "Indian Materia Medica." There were also used gums, resins, and oils; prominent among them benzoin, bdellium, turpentine, oil. ricini, oil. lini, and other fixed oils. Expressed juices were rarely employed. The liquids obtained by fermentation and distillation are classified as *liquores spirituosi siceræ* (siceræ was the sherbet of the ancient Israelites) and *destillati*. The first were prepared from rice, barley, different varieties of pepper, and Ceylon plumbago. The method employed was as follows: $2\frac{3}{4}$ parts of the liquid

were powdered with 2 parts of jujube berries and two parts of myrobolans. The mixture was then placed, with 14 parts of water, 1 part of iron, and 24 parts of sugar, in a vessel previously coated internally with pepper, honey, and butter; closed, and the whole left for seven days in a barley-basket (*hordaceo corbi*). Siceræ was prepared by boiling separately the juice of the *Dalbergia sisu*, *Mimosa ferruginea*, *Fasinum auriculatum*, *Premna spinosa*, *Ruta graveolens*, and *Trichoranthes dioica*; diluting, mixing, and leaving them to ferment. Siceræ were also obtained from *Ficus indica* or *Cassia fistula*. *Liquores destillati* are mentioned, but there is nothing said concerning the mode of preparation or the apparatus employed. From what we know otherwise of their requirements, as well as of modern Hindoo methods, we may safely assume that the process of distillation and its applications were known.

The animal kingdom yielded several contributions to Indian pharmacy, notably the leech, the *Scincus officinalis*, a kind of lizard of which even now a species is used in Northern Egypt. Cantharides was also known to them. An insect called *fator* was used as a remedy against cepra; lizards and mice, against worms, cough, and catarrh. The milk of cows, goats, sheep, mares, elephants, and buffaloes was held in high esteem; also cheese and butter, the latter being frequently used as an ointment. Butter made from human milk was used as *ambrosia simile* in diseases of the eye. Animal fats, gall, and other animal secretions were administered internally and externally; and nails, skin, and hair were used as fumigants. Musk and similar substances were used as stimulants and for impotency. *Bezoar orientale* was also known to them.

Medicines derived from the mineral kingdom were comparatively numerous, and afford a proof of the acquaintance of the ancient Indians with alchemy. Amongst those employed were charcoal, sulphur, asphaltum (for diseases of the liver and of the urethra), gold and silver (for the prolongation of life), tin, lead, copper, brass, antimony, spelter, and iron. Arsenic and mercury were known as the oxides and sulphides. *Ferri rubigo*, mixed with cinnamon and ginger, was given as tonic and antidote; *lapis magnus* as an antidote, and for gonorrhœa; yellow and red orpiment against leprosy; white arsenic with pepper and fragrant herbs for intermittent fever. Alum was used in the arts and in pharmacy, and salammoniac was also known. The following is the recipe for the preparation of ammonia, which was used as a local incentive in debility, fainting, and hysteria: Dry carefully one part of salammoniac and two of chalk, mix, and sublime at high temperature. A very interesting description is given of the preparation of a kind of sublimate. Mercury was rubbed up with sulphur, and a layer of this "sulphuret" was placed over a layer of common salt in a vessel, half filled with bricks. Another vessel was inverted and securely fixed over the first, and the whole exposed to a strong fire for twelve hours. After cooling, the mercurial salt was found deposited in the upper part of the vessel. The ancient Hindoos were evidently acquainted with the preparation of acids, and they used vinegar, sulphuric acid, and nitric acid. The following is a specimen of the emetics which the Vaidgas employed: Digest the ripe fruit of *Tangeria spinosa* in water, together with *Poa cynosuroides*, rub with cow-dung, boil in rice or barley, then digest during eight days with *Terminalia Bellerica*, *Phaseolus mungo*, and rice. Next *Echites antidyserterica* and long pepper were added, and the whole dried in the sun. With the residue curdled milk, honey, and sesame were mixed, dried, and placed in suitable vessels. In the next stage a handful of the above mixture was digested for 24 hours in a hot decoction of *Saponanthus indica* and honey, then mixed with more honey or rock-salt, and administered by the physician, who looked northward, while the patient's face was directed towards the east. Hindoo pharmacy generally was somewhat after this fashion. Emetics of various kinds were employed in cases of poisoning. The Vaidya distinguished between animal poisons and those derived from the mineral and vegetable kingdoms. But the meaning of "poison" was somewhat wide, and we find *Calamus rotang* and *Piper nigrum* classed along with the juices of several species of *Euphorbiac*; and amongst animal poisons we have "the evil eye," breath, claws of scorpions, and many nasty things, even a certain class of young females had the reputation of being highly poisonous!

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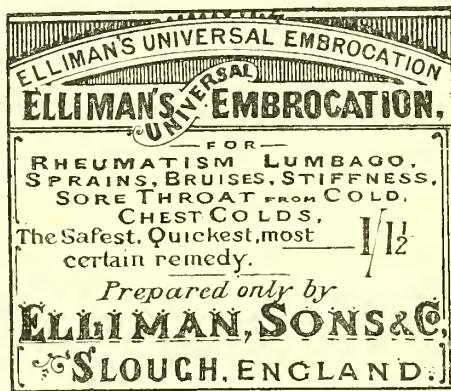
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EDITORIAL NOTES.

SHOP HOURS.

THE lively correspondence which has occupied so much of our space during the past few weeks has proved that an earnest desire exists among a large number of chemists, and no doubt almost universally among their assistants and apprentices, for the success of a Bill on the lines of that which Sir John Lubbock has introduced. The present correspondence opened with two forcible letters in opposition to legislative interference with chemists. In the following week we published two excellent letters advocating the Bill, with one somewhat neutral, and, besides, a note from Sir John Lubbock, intimating that his only reason for including chemists in his proposed legislation was that he had some reason to believe that it was their own desire not to be left out of it. Our correspondents endorsed this view by fourteen letters in hearty support of the Bill in our issue of October 9, and by over thirty letters in the two following weeks; while altogether some half-dozen wrote against it. This proportion may or may not represent fairly the opinion of the trade generally. We shall take an early opportunity of testing opinion on this question more accurately. Meanwhile it may be well to point out that the proportion of opposition of which we have evidence would be somewhat formidable if brought to bear on a Bill or an Act which should depend for its smooth working on the practical unanimity of those concerned. It is quite evident, for example, to take an analogous case, that if 10 per cent. of the bankers had seriously objected to the Bank Holidays Act, that measure could never have been carried into effect.

The advantages to health, happiness, and wealth, in its truest sense, contingent on the limitation of the hours of business to reasonable periods are so great as to be worth the sacrifice of the liberty of the subject to injure himself as much as he pleases in occasional instances. Theoretically we would rather see that liberty remain. But our legislation of the past quarter of a century has tended more and more away from the *laissez faire* doctrines, and has aimed to meet grievances and difficulties in the most practical way possible, regardless of the perfection of a theory. So it may be with this question. Our correspondents on the opposition side of the house have written very ably, but we cannot think they have shown that the oppression to which they would have to submit in the event of Sir John Lubbock's Bill being carried, would be anything like serious enough to balance the real benefits which would be conferred on thousands of their fellows. For the realisation of such benefits by the body corporate, individuals who do not wish for them for themselves may fairly be asked to consider whether the case is not one which calls for a little self-sacrifice.

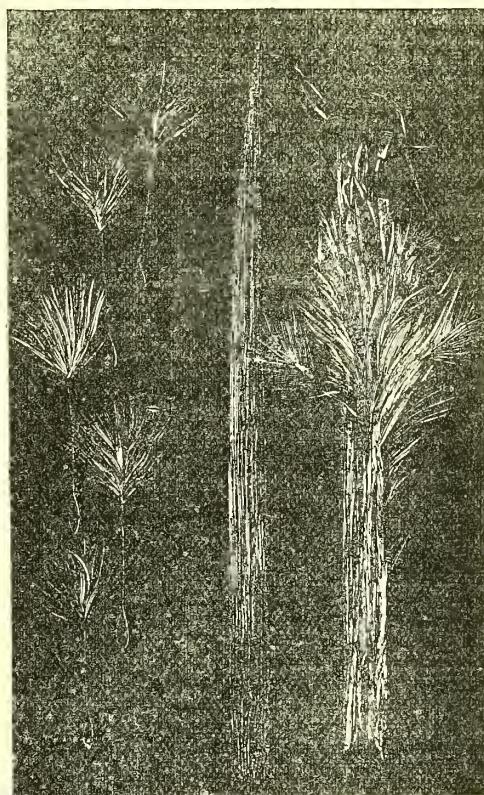
STROPHANTHUS.

IN previous issues (December, 1885, page 725, and March 13, page 172) we have referred to the remarkable properties of this drug, which was brought under the notice of the medical profession by Professor T. R. Fraser, of Edinburgh, in a presidential address to the Pharmacology section of the British Medical Association. The drug is a powerful cardiac stimulant, which has a less powerful action on the blood-vessels than digitalis, and, unlike that drug, is not cumulative, and is, moreover, a most effective diuretic. Professor Fraser's

observations, which have been both chemical and clinical were commenced in 1870, and two years later he published the results of a chemical examination of the drug and a physiological examination of its active principle—Strophanthin—which he isolated from the seeds. Hardy and Gallois have since corroborated Fraser's chemical results, and they also isolated from the seed-hairs a non-poisonous principle which they named "Ineine."

We again refer to the subject because there is now a reasonable hope that constant supplies may be forthcoming, Messrs. T. Christy & Co., of Fenchurch Street, having through their agent in East Africa despatched three parties into the interior to collect the drug. One party recently returned to the coast with a fair supply of strophanthus pods and other parts of the plant, and this, as was stated in our market report three weeks ago, has been received in London in fair condition. Accompanying the consignment is an interesting letter, giving particulars of the habit of growth and other matters of botanical importance confirmatory of previous observations by Kirk and others. The strophanthus species belong to the natural order Apocynaceæ. They are climbing plants, which grow to an immense height, and the Messrs. Christy's party report that they found them surmounting even the highest trees. The derivation of the name is indicative of this habit (*strophos*, a twisted thong, and *anthos*, a flower). In the Edinburgh botanic gardens the seeds which were planted last year have produced plants, which are at present in a healthy condition. There are several varieties of strophanthus, but the one under notice is supposed to be *Strophanthus hispidus*, although, as pointed out by Mr. Holmes, there is some doubt about this, the leaves of the Edinburgh plant being unlike those of other specimens so called. It is also noticeable that the leaves which the Messrs. Christy have received differ from the Edinburgh specimens, although the follicles are the same. The Edinburgh leaves (for a specimen of which we are indebted to Mr. Lindsay, curator of the gardens), are lanceolate in form, and 10 inches long by 4 inches broad, whereas those received by Messrs. Christy & Co. are about $3\frac{1}{2}$ inches long by $2\frac{1}{2}$ broad. It is probable that this difference may be only that which is frequently met with in young and old plants. This point will be settled on comparison of the flowers. According to Fraser the district in which the plant grows appears to be a wide one. Kombé and the Shiré Valley, in West Africa, are the districts in which it is most familiar; but it is also found in the Gaboon country, in Guinea, and in Senegambia. The exploring party to which we have referred found that it only grows in peculiar soil; but, wherever growing, it was found in abundance, and, were it not for the superstition of the natives, there would be no difficulty in obtaining constant supplies, adequate for therapeutic requirements. The natives use it as an arrow-poison, the seeds for this purpose being beaten into a pulp and smeared over the arrow above the barb. In the letter received by Mr. Christy it is stated that 5 kilos. of the fresh fruit weigh 450 grammes when dried, and that 4 cwt. of the fruit yield only 1 lb. of seeds, although the number of seeds in a pod varies from 100 to 250. This statement differs materially from that made by Fraser, who found that the pods weigh from 130 to 330 grains each, and that the seeds weigh each about half a grain. It will be remembered that in March last Messrs. Burroughs, Wellcome & Co. received a consignment of strophanthus from the Shiré Valley district. One half of the parcel consisted of scraped and washed follicles, and the other half of unscraped follicles. The follicles, which are from 10 to 15 inches long, and taper from an inch broad at the base to a quarter of an inch at the apex, were bound together in a string with

fibre. Messrs. Christy & Co.'s consignment is similar in every respect, with other parts of the plant additional. The bark of the root is very suberous, and closely resembles that of *Alstonia constricta*, which belongs to the same natural order. The branch bark is darker, is not suberous, and is much dotted with light-coloured minute warts. The fruit when fresh yields a vermillion-coloured juice, which rapidly changes to a brown colour. The following is an illustration, from the *American Druggist*, of the follicles and the seeds with their comose appendage:—



We are surprised to hear that the whole fruit is being used for preparing the tincture, in spite of the stipulation by Professor Fraser that the seeds only are to be used. Although he has found that the pericarp contains strophanthin, there is no evidence of its actual potency. The seeds contain from 8 to 10 per cent. of strophanthin, together with much fatty matter, which is also largely abundant in the pericarp. Several weeks ago we received a letter regarding tincture of strophanthus from Messrs. Burroughs, Wellcome & Co., in which they say:—"We have heretofore operated upon large quantities of the strophanthus, but the proportions for a small quantity would be $2\frac{1}{2}$ oz. of the prime seeds deprived of fat by means of ether and then percolated with rectified spirit until one pint of tincture is obtained. The solution of fat in ether is of course rejected, as so far it has not been found of any use, and naturally interferes with making a clear solution of the tincture in water. All unripe, imperfect seeds and all but full-grown pods should be rejected, as they are very deficient in active principle. We are indebted to Professor Fraser, of Edinburgh, for this formula." Messrs. J. Robertson & Co., of Edinburgh, writing on the 16th inst., corroborate the foregoing statement. They state that they have made the preparation on various occasions since November, 1885, the formula used being the same as given by Messrs. Burroughs, Wellcome & Co. On the occasion of the introduction of this remedy Professor Fraser called upon them and gave

them his formula for making the tincture, and also presented them with such portion of the seeds as he could then spare, which was the only supply at that time in this country.

We have failed to trace any authoritative account of the examination of the pericarp. M. Hardy certainly does not appear to have examined anything else than the seed, although a statement has been made to the contrary. We have, therefore, consulted Professor Fraser on the point, and he writes: "I have not determined the relative activity of the pericarp and seeds of strophanthus. I found the active principle in the pericarp long ago, but have not gone further because I could not get a sufficient supply of the fruit without a great part of the pericarp having been scraped off. I am now looking into this question, although I have very little material to do it with. In the meantime, I think it is unsafe to use a tincture made from anything but the seeds, as there is no accurate information of the activity of the pericarp or any portion of it."

In view of this statement by Professor Fraser, and the clear evidence by manufacturing firms that nothing but the seeds has hitherto been used, it is to be hoped that full publicity will be given to the results of the examination of the pericarp, which, we understand, is being made at present by several pharmacists and therapeuticists.

Important Apprentices. On Monday next, November 1, the Shop Hours Regulation Act passed last session will come into operation. The text of the Act was published in THE CHEMIST AND DRUGGIST, June 26, 1886. It provides that no person under the age of eighteen can be legally employed in or about a shop for more than seventy-four hours in any one week, and those hours are to include reasonable periods for meals. An employer is liable to a penalty of 1*l.* for every young person whom he may keep at work beyond such hours. The Act also requires that in all shops where persons under eighteen are employed "a notice shall be exhibited in a conspicuous place referring to the provisions of the Act, and stating the number of hours in the week during which young persons may be lawfully employed therein." We do not discover that any penalty attaches to disobedience in regard to this clause, but there may be some roundabout legal method of enforcing it.

**

Society of Chemical Industry. At the meetings of the London section of the Society of Chemical Industry, to be held on the first Mondays in each month, commencing on Monday next, the following papers will be read:—"What shall we do with our tar?" by Mr. L. T. Wright, C.E.; "Strontium Hydrate," by E. H. Traschel; "Various Forms of Filter Pumps and Water Jet Aspirators," by Mr. T. Fairley; "The Explosive Kinetics," by Mr. Watson Smith; "Fermentation in its Relation to Bread-making," by Mr. W. Jago. The meetings are held at Burlington House, Piccadilly, at 8 P.M. Mr. David Howard, Stratford, is chairman, and Mr. Thomas Tyrer, Battersea, honorary secretary.

**

Porous Carbon. A report of a new system of sewage in operation at Southampton, published in last Saturday's *Times*, reveals the existence of a certain mineral powder found in Devonshire and known as porous carbon, which, according to the report, possesses remarkable properties. This substance is said to be rich in available iron, alumina, and carbon. By treatment the metals are rendered soluble, and then the mixture is a wonderful chemical precipitant. It is mixed with the sewage in the proportion of 2½ to 3 grains per gallon, whereupon it at once destroys all odour and precipitates and oxidises all solids and organic matter. The effluent water is rendered almost perfectly pure, while the precipitate "mixed with road scrapings" finds a ready sale to farmers, who fetch it away for manure and pay 2s. 6d. per ton for it. If this be true, the sewage problem is solved, and for the solution we are indebted to Mr. W. B. G. Bennett, engineer, and Mr. Arthur

Angell, chemist. The virtues of the porous carbon are not limited to its use as a precipitant. "In addition to its chemical properties," says the *Times*, "it possesses the mechanical property of adding to the lightness and porosity of the soil by reason of the presence of the particles of earthy carbon." There are several points of mystery about that sentence, but the chief one lies in the main statement. With only two or three grains of the carbon to the gallon of sludge there would only be about half an ounce to the ton of manure; unless this acts after the manner of a ferment, which would be very wonderful indeed, it is difficult to understand how such a minute proportion can have much mechanical influence on the millions of tons of earth which form the soil of a ten-acre field.

**

Lady Chemists. Mrs. Fenwick Miller has been writing in the *Lady's Pictorial* in advocacy of the pharmaceutical profession for ladies. Her knowledge of the subject is not quite equal to her zeal, however, for she somewhat confuses what perhaps ought to be with what is. According to her the Minor examination is necessary to qualify for assistantship, while the Major must be passed before any person is "free of the craft." It must have been, too, the same person who coached Mrs. Miller in the examination requirements who informed her that 140 ladies have hitherto taken their certificates. After giving a fairly accurate summary of the range of the examinations, Mrs. Miller concludes thus:—"Several hospitals are now employing women as dispensers. The work is certainly essentially suited to the tact and rapidity of the female hand; it requires no great physical strength, but rather care and nicety, and there seems no reason why there should not be many women making a profitable living as chemists and druggists. For more capable or ambitious ladies a yet wider field is open. I am acquainted with a clever girl who is being trained by her brother, an analytical chemist of distinction, as his assistant in his analytical laboratory; and I am informed that she has learned this remunerative and important work remarkably well, and operates with much skill and accuracy."

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A Rheumatic Remedy. In the *Newcastle Leader*, in the course of an article describing the process of salt manufacture at Messrs. Ogilvie's works at North Shields, it is stated that in the boiling pans, when cleansing is in progress, a fluid locally termed "bittern"—the muriate of magnesia, or mother liquor of brine—is found. Formerly this by-product was of considerable value in the manufacture of magnesia, but commercially it is now of no consequence, and, as a matter of fact, there are no residuals from the manufacture worth a doit. Rheumatic patients, who cling to every nostrum because none affords relief, are regular suppliants at the works for a bottle of this oil of salt. It costs them nothing, and is possibly as potent an oil or balm as anything known in quackdom.

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Edinburgh Assistants' Association. This association commenced its ninth session on Tuesday evening under conditions which augur well for its continued success. We notice from the syllabus which has been sent to us that more meetings will be held this session than there have been hitherto, each week of the months of February and March being provided for, while in other months fortnightly meetings will be held. We are also pleased to notice that a large share of the work of the session is undertaken by those who have not previously contributed, and that the communications are not only numerous, but apparently of an eminently practical character. We trust that this useful association will have all the success it deserves.

**

Sir John Lawes's Wheat Crop. A few weeks since, in describing the laboratory and field experiments carried on by Sir John Lawes and Dr. Gilbert at Rothamsted, we referred to a field where a most interesting investigation has been carried on for a long series of years. This is the forty-third year in which wheat has been continuously grown on one particular field. The field is divided into numerous plots. Two of these have been unmanured during the whole period, and have grown wheat every year. On

these the crop was this year at the rate of 9 bushels of dressed corn per acre. Last year the yield was about 15 bushels, and the average during the past thirty-four years has been $13\frac{1}{2}$ bushels. Plots which have been dressed with farmyard manure all the years yielded this year $36\frac{1}{2}$ bushels, against over 40 bushels last year, and an average for thirty-four years of $33\frac{1}{2}$ bushels. But plots which have been treated with various artificial manures have yielded much above the average, and Sir John Lawes accounts for this discrepancy between the natural and the artificial crops by the fact that during last winter there was much more rain than in the previous year, washing away to some extent the nitrates from the unmanured and the dung-manured plots, the artificial manures not being thus handicapped by reason of their being applied later. Judging from his experimental plots, Sir John Lawes concludes that wheat on poor and light lands will turn out this year to be below the average, but that on well-dressed and heavy lands it will be more than an average crop. At the outside, however, he reckons this country will not produce more than about eight million quarters of wheat, while our population will require altogether some twenty-six or twenty-seven million quarters, leaving over eighteen million quarters to be brought from abroad.

PHARMACY LAW IN VICTORIA.

COMPANIES ESCAPE THE ACT.

AT the Melbourne District Court on September 9, the Equitable Co-operative Society were summoned by Mr. H. W. Shillinglaw, registrar of the Pharmacy Board, for that being a society registered under the Industrial and Provident Societies Act 1873, and not being a registered pharmaceutical chemist, they did carry on business as a chemist and druggist, contrary to section 25 of the Pharmacy Act. There were four distinct charges against the society, the dates of the alleged offences being on August 26 and 31.

Mr. Isaacs appeared for the prosecution, and Dr. M'Inerney for the defence.

Dr. M'Inerney objected that the summons had been served not on the Equitable Co-operative Society but on Mr. Nuttall, the secretary, but the Bench overruled the objection.

The first case taken was in respect to the business of a chemist and druggist being carried on at the offices of the society, 89 Collins Street East, on August 26, 1886.

Harry William Shillinglaw, registrar of the Pharmacy Board, produced the minute of the Board authorising him to prosecute on their behalf. He wrote to the defendant society on January 14 last, calling attention to the necessity for their complying with the Act, and after some correspondence he called and saw Mr. Nuttall, the secretary. Mr. Nuttall asked him what would be compliance with the Act, and he (Mr. Shillinglaw) told him that compliance with the Act would be to discontinue dispensing prescriptions and that portion of the business that constituted an infringement of the Act. He told him that the company could not carry on business under the Act.

To Dr. M'Inerney: The name of James C. Goold is on the Pharmacy Register, and on August 26 the address opposite his name was 89 Collins Street East, Melbourne.

Dr. M'Inerney: He is a duly qualified pharmaceutical chemist?

Witness: He is registered under the Pharmacy Act.

P. R. Scott, a laboratory assistant in the College of Pharmacy, stated that he obtained a prescription from Dr. Valentine Brown, which he took to the Equitable Co-operative Society, at 89 Collins Street East. He presented it to Mr. Goold, who handed him back a bottle of medicine, of which he subsequently gave a portion to Professor Jackson for the purpose of analysis.

Dr. Valentine Brown said that the last witness came to him and asked for a tonic, and he prescribed one of sulphate of quinine, solution of strychnia, dilute sulphuric acid, syrup and water — articles which were usually dispensed by chemists.

Professor Jackson, director of the College of Pharmacy, gave evidence as to the result of the analysis of the medicine made by him.

The Bench, without calling upon Dr. M'Inerney, decided

that the prosecution had not made out their case, and that the medicine was duly dispensed by a duly qualified chemist, that he complied with the Act in every way, and that the public were protected.

Case dismissed, with 3*l.* 3*s.* costs.

Mr. Isaacs intimated that he should appeal.

The other cases against the society were adjourned by consent, pending the result of the appeal to the Supreme Court.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade-marks to be addressed to H. Reader Lack, Esq., Comptroller-General of Patents, Designs, and Trade-marks, Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

From the "Trade Marks Journal," October 27, 1886.

"HALL'S HEALTH RENEWERS" (49,145), and circular picture label, with figure of a woman on seashore, &c. (49,147); for medicines. By B. Stnart & T. Colman, 24 Queen Victoria Street, London.

"ROUGE COMPO"; for plate-powder and similar substances. By W. A. Carlyle, Constitution Hill, Birmingham. 51,706.

"LOCKWOOD'S BLOOD AND SKIN POWDERS"; for pharmaceutical preparations. By Thomas Lockwood, Market Place, Otley. 53,413.

"THE BRILLIANT STAR BOOT POLISH," and a star; for a boot polish. By R. Hutchinson, 4 Gloucester Square, Hyde Park. 53,675.

"ACIDE SOZOLIQUE," other wording, and figure of chemical apparatus; for a chemical disinfectant. By G. & A. Patto (trading as Patto Frères), 39 Rue d'Enghien, Paris. 53,985.

"BOISSOLETURUS," and other wording, on a label; for a polish restorer. By N. Joseph, 60 Porchester Road, Easyswater, W. 54,152.

"FOOT SALT," and figures of four feet, on a round label; for a medicinal preparation. By E. Martin, 55 Friar Gate, Derby. 54,212.

"PIONEER"; for perfumery. By Hodgson & Simpson, Calder Soap Works, Wakefield. 54,316.

"VELVET SKIN SOAP," and a figure; for soap. By Watts & Co., Compton House, Liverpool. 54,512.

"CLIFF HILL'S CHILBLAIN LOTION," on figure of a bottle, upon which an eagle is resting; for a chilblain lotion. By J. C. Hill, 36 Earl Street, Maidstone. 54,735.

Figure of a wheel; for cardboard and willow boxes, capsules of gelatine for containing medicine, polishing paste, &c. By Paul Metz, 10 Jewin Street, London. 54,703.

Monogram "J. G."; for medicines. By Joseph Gerred, 2 Milk Street, and elsewhere, Exeter. 54,834.

Design showing a large "B" in an oblong, with initials of the firm within the letter; for bottling-wax. By Aire & Calder Glass Bottle Works, E. Brefitt & Co. (Lim.), 83 Upper Thames Street, E.C. (54,899). The same for bottling-wire (54,900).

Shield-shaped label, with name of firm, other wording, and designs; for perfume for the handkerchief and other toilet preparations. By J. & E. Atkison, 24 Old Bond Street. 55,735.

"PURITY," and figures, on diamond design; for perfumery. By Goulding, Baunister & Co. (Lim.), 108 Patrick Street, Cork. 55,799.

"FRUIT AND VEGETABLE MOTO," and figures; for medicinal preparations. By J. C. Eno, Pomeroy Street, New Cross Road, London. 55,979.

"YOUATT-STONEHENGE," and monogram; for chemical preparations for external application to animals. By A. J. Lehmann, 14 Delamore Street, Liverpool. 55,987.

"MARGERISON"; for common and perfumed soap. By J. Margerison (trading as Joshua Margerison & Co.), White Windsor Soap Works, Preston. 56,051-2.

"SALICON"; for food preservatives. By Haigh & Co., 14 Park Place, Leeds. 56,133.



HAY'S HOP ESSENCE AND HOP ALE.

MR. WILLIAM HAY, of Hull, whose soluble essences for aërated waters have deservedly attained a world-wide reputation, has of late been experimenting on hops, and his labours have resulted in the production of a beautiful essence which deserves to rank as quite a pharmaceutical triumph. The resin seems to be entirely removed and the essence now before us has the fine hop aroma devoid of all trace of coarseness. It mixes perfectly with water and no milkiness whatever results. Mr. Hay manufactures from this essence a new aërated water styled Hop Ale, which brings before the temperance world a beverage which only suggests their alcoholic arch-enemy in its title, and in a delicate reminder of the hop in its flavour. This production has all the bright appearance of champagne, but is, of course, innocent of its demon. It is a very agreeable drink, and suitable for either summer or winter. It froths remarkably, and Mr. Hay assures us that this is due entirely to the hop essence contained in it. He abominates all artificial froth-producers. That his explanation is sufficient is proved by the addition of some hop essence to a bottle of soda water; a similar foam is at once yielded. Mr. Hay's business in soluble essences has reached huge dimensions. For their manufacture (which is quite separate from his aërated-water factory), he employs a 16-horse power gas-engine, one of the largest which the Otto company have yet manufactured.

ROYAL CAFE SAUCE.

MR. PETER TYRER, of the Borough, has put into the market a new sauce under the above name, the remarkable feature of which is that it is to be retailed at sixpence. There are other sixpenny sauces in the trade of excellent quality, but this one is of the kind that is generally regarded as of a specially expensive character. It is of thick consistence, of a reddish colour, and really of fine flavour. It is put up in long square bottles effectively labelled, and usefully adds a new style to the stock of sauces to the million. Along with a sample of this sauce Mr. Tyrer sends us a specimen of his penny bottles of ketchup. This—which we notice he supplies at less than a half-penny a bottle wholesale—is really a wonderful production. In appearance, odour, and taste, it leaves nothing to be desired, and the pennyworth comprises a fair bottle and sufficient ketchup to flavour a good many meals.

BALL-POINTED PENS.

A NEW pen has been put on the market, the peculiarity of which is that where the point is usually to be found there is



no point at all, but a minute ball, giving a curved surface to that part of the pen which comes in contact with the paper.



The effect is that the pen glides easily over the paper, and that the chance of sticking or spluttering is entirely obviated.

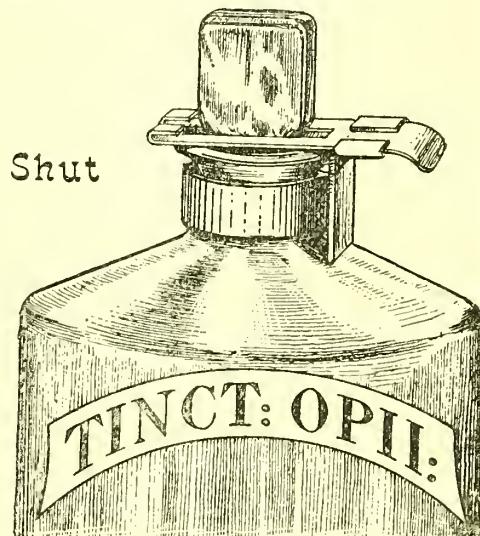
The inventors of the pen have completed their work by patenting a penholder also. This they call the "Federation" penholder. Its advantage, as may be judged from the engraving, is that it may be laid about without danger of inking papers or table-cloths. Ormiston & Glass, Elder Street, Edinburgh, are the sole agents for this pen and penholder.

POWDERED MALT EXTRACT.

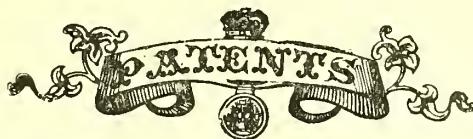
WE have received from Messrs. J. W. Drysdale & Co., of 4 Bury Street, E.C., a sample of Douglas's "Unique" concentrated dry extract of malt, which, we understand, is being introduced at present. The extract is in the form of a light-coloured dry powder, of a pseudo-crystalline appearance. It is freely soluble in water, and possesses both the taste and rich aroma of freshly-prepared barley malt. Although the preparation must necessarily undergo prolonged evaporation in order to bring it to the condition of a dry non-adhesive powder, we find on putting it to the test that its diastatic properties are unimpaired. This condition is attained by evaporating the malt solution at a very low temperature, and by a special process, whereby the ferment is unaffected. The form in which the extract is sent out is certain to bring it into favour as a medicine and a food. For the latter purpose all that is necessary to make "Liebig's" food for infants is to mix a tea-spoonful of the powder with a tumblerful of milk.

NEW STOPPER-GUARD.

THE subjoined illustration shows a new stopper-guard which has been invented by Messrs. Pittuck & Snowden, of Hebburn-on-Tyne. The guard consists of a band of metal with return ends, which is slipped on the neck of the ordinary shop-round; then another piece of metal, into which the guard proper is fixed, is pressed down over the return ends, thus fixing the apparatus securely upon the bottle. The sliding guard moves easily in the upright, and is not liable to catch.



The figure shows the stopper secured. In this position it is impossible to remove it without notice, so that the laudanum bottle, fitted as shown, is not at all likely to be taken up and used when tr. rhei is wanted. The good points about this novelty are, that no special bottle is required, and that to the customer it appears rather as an embellishment than a dangerous signal. The guard is made of lacquered brass, in several sizes, and we understand that Messrs. Bourne & Taylor are the London agents.



The following applications for Patents have been registered at the Patent Office.

Aerated Beverages.—12,611.—October 4, 1886.—F. A. Reihlen. Preparation and bottling of carbonated beverages.

Anæsthetics.—12,364.—September 29, 1886.—B. M. Wilkerson. Apparatus for administering anæsthetics.

Beverage.—12,064.—September 22, 1886.—F. Woolway. A non-alcoholic beverage.

Blue.—12,054.—September 22, 1886.—R. Ripley. Forming blacklead, blue, and other like substances into packets.

Bottle Stoppers.—12,461.—October 1, 1886.—J. Thornton. —12,606.—October 4, 1886.—W. A. Larlham. —12,613.—October 5, 1886.—T. Sugden and T. Taylor. —12,621.—October 5, 1886.—A. Philburn and A. Moors. —12,642.—October 5, 1886.—J. Stones. —12,644.—October 5, 1886.—W. Ball. —12,687.—October 5, 1886.—W. B. Fitch. —12,699.—October 5, 1886.—H. H. Lake. —12,791.—October 7, 1886.—W. Flatau and A. D. Turner.

Bottles.—12,688.—October 5, 1886.—W. B. Fitch. —12,717.—October 6, 1886.—J. Tiffen. Fixing cork rings in bottles. —12,780.—October 7, 1886.—O. Sumner.

Bottles and Bottle-stoppers.—11,961.—September 21, 1886.—J. Holmes. An improved stopper for bottles. —12,023.—September 21, 1886.—J. B. Helsby. An improved bottle-stopper. —12,088.—September 23, 1886.—T. Bintliff and M. Crossley. Stoppering bottles for containing ale, stout, or other liquids of similar nature. —12,138.—September 24, 1886.—G. W. Ellis. Improvements in external bottle stoppers. —12,146.—September 24, 1886.—G. A. Cubley and J. Preston. Improvements in stoppering bottles and jars. —12,424.—September 30, 1886.—A. Johns. Improvements in stoppers and necks of bottles and like vessels.

Cattle Spice.—12,143.—September 24, 1886.—J. Parker. Spice or food for horses, cattle, sheep, and pigs.

Champagne Tap.—12,472.—October 1, 1886.—W. J. Payne. Apparatus for withdrawal of champagne, &c.

Chest Protector.—12,581.—October 4, 1886.—J. Robinson. An improved chest protector.

Cod-liver Oil.—12,757.—October 6, 1886.—R. de Bruce Trotter. A new preparation of cod-liver oil and mode of manufacturing the same.

Dentifrice.—12,034.—September 22, 1886.—F. Bosshardt. A new dentifrice water.

Feeding Bottles.—12,473.—October 1, 1886.—G. F. Metcalfe. Device for regulating the flow from feeding bottles.

Fire Extinguisher.—12,253.—September 27, 1886.—J. Haslam. Chemical fire-extinguisher.

Gums.—12,302.—September 28, 1886.—A. M. Wood. Manufacture of india rubber, gutta-percha, and analogous gums.

Hypo.—12,255.—September 27, 1886.—T. Raynaud. Producing hyposulphite of soda for antichlor, photography, &c.

Inhaler.—12,476.—October 1, 1886.—S. Hardwick. An antiseptic and germicide inhaler.

Liquid Carbonic Acid.—12,071.—September 22, 1886.—F. Foster. Supplying the gasometer of continuous action liquid aërating machines automatically from a reservoir of compressed or liquefied carbonic acid gas.

Liquid Gum.—12,520.—October 2, 1886.—E. M. Knight. Manufacture of liquid gum.

Medical Treatment.—12,033.—September 22, 1886.—J. Shaw. A method of treating the human body for the cure of certain diseases and apparatus therefor.

Medicine.—12,300.—September 28, 1886.—C. Adenauer. A medicine for curing prolapsus, piles, and haemorrhoids.

Medicinal Tea.—12,408.—September 30, 1886.—P. Ilomero. A tea made of a plant, Herba Homeriana, which is a cure for consumption and other diseases of the chest.

Meta-stannic Acid.—12,110.—September 23, 1886.—J. J. Hood and A. G. Salamon. Manufacture and purification of meta-stannic acid.

Metal Polish.—12,413.—September 30, 1886.—W. C. Boult and F. J. Ryan. A cleansing and polishing liquid for brass, copper, zinc, and other metals.

Oils.—12,652.—October 5, 1886.—A. Brin and L. Q. Brin. Oxidation of oils for use in the manufacture of paints &c. —12,799.—October 7, 1886.—C. Schill and C. Seilacher. Oxidising oils, fats, and other organic substances.

Perfumery.—12,610.—October 4, 1886.—P. H. Lecornu and A. Raynaud. Improvements in manufacture of perfumery.

Quinine Substitute.—12,082.—September 23, 1886.—J. Allpass. A substitute for quinine and other alkaloids and their salts for medicinal purposes.

Shaving Soap.—12,429.—October 1, 1886.—K. G. R. Vaizey. Holding shaving soap.

Sodium Sulphide.—12,480.—October 1, 1886.—F. H. Gosage, T. T. Mathieson, and J. Hawliczek. Improvements in and apparatus for the manufacture of sulphide of sodium therefrom.

Softening Water.—12,061.—September 22, 1886.—H. R. Lipscombe. Manufacture of a composition for softening and purifying water.

Surgical.—12,154.—September 24, 1886.—W. Matthews. Applying pressure for surgical purposes.

Syphon.—12,173.—September 24, 1886.—R. Wicks. A lifting syphon with valve combined.

Tooth-Brushes.—12,784.—October 7, 1886.—E. A. Strutton. Improvements in tooth-brushes. —12,789.—October 7, 1886.—I. E. Clifford. Improvements in tooth and similar brushes.

Trusses.—12,149.—September 24, 1886.—E. Jones. Trusses for ruptures.

Zinc.—12,249.—September 27, 1886.—W. S. Squire and S. C. C. Currie. Obtaining zinc in a metallic form from alkaline solutions of zinc oxide.

Specifications recently published.

(Postage, 1d. each extra.)

1885.

11,474. G. W. Clements. Lip respirator. 4d.

12,922. R. Stone. Grinding and pulverising. 6d.

13,096. A. Morton and J. Fyfe. Distilling and refining mineral oils. 8d.

13,330. A. Savage. Compound mixture for cleaning and dyeing old felt hats. 4d.

13,396. E. Jackson. Composition for coating ships' bottoms, &c. 6d.

13,605. E. W. Rippin. Bottle stoppers. 8d.

14,294. D. W. Blaxter and S. G. Page. Screw neck bottles, &c. 8d.

14,962. H. H. Lake. Colouring matters. 4d.

1886.

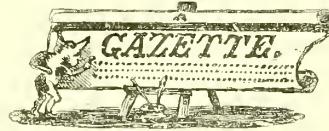
9,754. L. Schad. Bluish black colour. 4d.

9,806. C. A. Von Welsbach. Obtaining compounds of the rarer metals from their earths. 6d.

9,838. E. C. Allam. Filters. 6d.
 9,567. J. Weir. Obtaining fresh water from salt water, &c. 6d.
 9,591. J. Thomson. Antiseptic soap. 4d.
 9,630. L. Béchaux. Distilling, &c., alcholic and other liquids. 8d.
 10,072. W. Hazlehurst. Stoppers for bottles, &c. 6d.

The following Patents have become void through non-payment of renewal fees.

2,754. H. Faulder. Impressing lozenges for advertising.
 2,758. A. M. Clark. Extracting glycerine.
 2,839. C. P. D. Chittenden. Retaining heat in infants' feeding bottles, &c.
 2,849. J. H. Johnson. Expressing oils from seeds, &c.
 2,876. H. Gaskell, Jun., and another. Manufacture of bicarbonate of soda.
 2,518. T. H. Gray. Manufacture of oils, &c.
 3,041. W. Froggatt. Internal stoppers.
 3,044. J. Erskine. Production of alpho-oxyhydro-chinoline, &c.
 3,072. G. W. Von Nawrocki. Manufacture of hyposulphite of soda.



PARTNERSHIPS DISSOLVED.

BEARDSHAW & SMAILES, Leeds, surgeons and apothecaries.
 BROAD & SMITH, Bristol, veterinary surgeons and shoeling smiths.
 DAVIS M. & MOSELEY M., Skinner Street, Bishopsgate, sponge merchants.
 RAMAGE & WOODHOUSE, Accrington, paint, colour, and chemical manufacturers.
 SHEPPARD W. R. & Co., Worcester, mineral and aerated water, fruit syrups, and cordial manufacturers.

RECEIVING ORDER AND DATE OF PUBLIC EXAMINATION.

TAYLOR, ROBERT FREDERICK. Stopford, Leicester, surgeon. Nov. 10
Leicester.

FIRST MEETINGS.

BELSHAW, ROBERT, Nottingham, late Arctic fleecy hosiery and elastic surgical hosiery manufacturer, now out of business. Oct. 30. Official Receiver's Office, Nottingham.

HOROBIN, WILLIAM (trading as the Excelsior Washing Liquor Company), Bradford, drysalter and washing liquor manufacturer. Oct. 29. Official Receiver's Chambers, Bradford.

TAYLOR, ROBERT FREDERICK. Stopford, Leicester, surgeon. Nov. 4, 28
Friar Lane, Leicester.

ADJUDICATIONS.

BELSHAW, ROBERT, Nottingham, late Arctic fleecy hosiery and elastic surgical hosiery manufacturer, now out of business.

LARGE, CHARLES WILLIAM, Cornwall Road, Notting Hill, dentist.

NOTICES OF DIVIDENDS.

CLOSE, JOHN DOUGLAS, Hull and Huddersfield, lately trading at Huddersfield, and Wilmington, Hull, with J. T. Gibson, as Close, Gibson & Co., manufacturing chemist. Second and final div. of 3*4d.*, any day. Messrs. Schofield, Son & Shaw's, Wellington Buildings, Queen Street, Huddersfield.

SLEEMAN, HENRY BEDFORD (trading as H. B. Sleeman & Co.), Lime Street, London, and Birmingham, India and general merchant. Second div. of 3*d.* Nov. 1. 1 Walbrook, London.

ORDER MADE ON APPLICATION FOR DISCHARGE.

TEMPEST, RICHARD SPENCER (trading as R. S. Tempest & Co.), Bradford, wholesale druggist and drysalter. Discharge granted.

Foreign and Colonial.

CONSUMPTION OF QUININE IN AMERICA.—The National Druggists' Association report states that quinine was used in the United States during the past year to the total amount of 81*1*₄ tons.

THE MAYOR OF AUBERVILLERS has ordered the closing of a large manufactory of chemicals belonging to the great sugar-refiners, MM. Lebaudy, in consequence of the noxious vapours emitted. The works employed three hundred men.

ANDERJOU, OR INDURJOU, is the seed of the *Holarrhena Antidysenterica*, described by Waring ("Pharm. of India," 1868, p. 137). Its bark was formerly imported into Europe under the name of *Codaja pala*, pala bark, and Tellicherry bark. It seems to have fallen into discredit in consequence of being mixed with barks of other species. But it is still used very extensively in the island of Mauritius as an anti-dysenteric remedy, especially in the form known as "Reinede Mauvis." According to the information given in the *Bulletin de la Société Médicale de l'Ile Maurice*, this remedy is prepared as follows:—Take 1 lb. of anderjou, clean, dry, and crush it. Take 20 spoonfuls of this powder, and mix intimately 1 spoonful of a combination of roasted anderjou with arrowroot. Divide into doses of about 6 drachms each, and take one daily, infused in about 16 oz. of water.

INTERNATIONAL EXHIBITION AT BARCELONA.—An International Exhibition is to be held at Barcelona between the months of September 1887 and April 1888. The exhibition, which will be opened on September 15, and remain open for at least six months, will admit all agricultural, industrial, and commercial products, and will have a special section for shipping, fine arts, electricity, medicine, and hydropathy. It is to be held in the park and adjacent grounds belonging to the municipality, in the vicinity of the French and Tarragona railways, and will cover an area of 300,000 square mètres. Arrangements have been made with the Spanish railway companies by which a rebate of 50 per cent. will be granted on the rates generally charged on all goods conveyed by their lines for the purpose of being placed in the exhibition, and negotiations for obtaining similar concessions have been opened with foreign railways in connection with the Spanish lines.—*Board of Trade Journal*.

A THOUSAND SHEEP POISONED.—The mail from South Africa brings tidings of another of those wholesale poisonings of sheep that have happened from time to time, filling the minds of the farmers with consternation in the localities where they occur. This time it is a farmer in the Bloemfontein district whose stock has been so ruthlessly destroyed, and to the extent of nearly a thousand sheep. The particulars of the case must be of special interest to all owners of sheep. The dip used was one of the best known of the class distinguished as powder dips (arsenical), and has long had the reputation of being prepared with great care. We believe the farmer used it with some degree of confidence, in face of the printed statement with each packet to the effect that this powder dip might be used with perfect safety if the directions were followed. Unfortunately, the results have contradicted this. The directions were followed with ordinary care, yet nearly a thousand of the sheep dipped were poisoned. How did this occur? It appears the sheep were suffering from scabs, and twice dipping at an interval of a fortnight was considered desirable. A large dipping-tank was used, that contained some of the solution of the same dip held over from a previous dipping. This was added to in the usual manner, and the flock was dipped. Owing to the hot weather or some other cause, this dipping caused some soreness and inflammation of the pelt (or skin of the animal), but much attention was not paid to it. The sheep were dipped a second time, as recommended in the directions accompanying the dip, with the result that afterwards nearly a thousand of them died, and in great agonies, caused, as has since been proved, by the absorption of arsenic through the skin. The case appears to be a good deal analogous to that which occurred at Berwick-on-Tweed some years since, when 850 sheep were poisoned.—*Field*.

Trade Report.

It should always be remembered that prices quoted in this section are as nearly as can be ascertained the lowest that are actually paid for bulk quantities. Considerable allowances have to be added in many cases before ordinary prices can be ascertained, and for many drugs it must be recollect that the range of quality is very wide.

MINCING LANE, October 28.

ACID (CITRIC).—Quoted at 1s. 11d. per lb. for spot stuff.

ACID (SALICYLIC).—In our report of October 23 the price of this article was erroneously quoted as 1s. 9d. It should be 6s. 9d. per lb.

ACID (TARTARIC).—*English* is held at 1s. 6 $\frac{1}{4}$ d. per lb., *Foreign* at 1s. 6 $\frac{1}{2}$ d. per lb.

ALMONDS.—Forty-nine bags bitter *Canary* bought in at 60s. per cwt.

ALOES.—*Cape* rather neglected, and selling slowly at about previous values, viz. 28s. for good hard, and 25s. to 21s. 6d. for fair partly drossy to ordinary quality. A lot of sweepings fetched 2s. 6d. Of *Curaçao* there was again a large show; for good bright quality 97s. 6d. was paid, while fair to very ordinary sold at pices ranging between 47s. 6d. and 19s. per ewt. *Zanzibar* aloes are steady at previous rates, 90s. to 102s. 6d. being paid for fair to good quality in kerosene tins, and 42s. 6d. per ewt. for inferior stuff.

AMBERGRIS.—Eight packages were shown, but only two of these were of any importance. A small piece of about 1 oz. in weight, pale grey colour, sold after lively competition (starting at 70s.), at 95s. per oz.; 73s. per oz. was paid for fair grey stuff, and 16s. for very low undeveloped quality. Fine ambergris is very scarce at present, but it is reported that a larger quantity of the grey-coloured article will shortly be placed on the market.

ANNATTO.—A parcel good bright seed from Ceylon sold at 4d. per lb., while 20 baskets very soft Brazilian *roll* were again bought in over value at 1s. 4d. per lb.

ANTIMONY quite neglected, and 140 boxes erude *Japanese* all bought in.

ARAROBA.—The 7 eases offered in last sale were again shown to-day, and encountered an offer of 4s. per lb., which was refused.

ARECA NUTS.—A few lots were sold without reserve, partly at 11s. per ewt., a price equal to that last paid, the present lot being slightly preferable in quality.

ARGOL.—Better prices are paid for grey *Cape* argol, 58 bags good, but more or less dusty quality, selling at 88s. to 92s. per ewt.

BAEL FRUIT.—Several lots of good pale fragments were shown; 2 $\frac{1}{2}$ d. per lb. being refused for some of these, 55 bags low black fragments also remained unsold.

BUCHA LEAVES.—No long leaves were sold, although several lots of this variety were shown. 3d. per lb. was paid for dull round leaves, very slightly mixed with flowers, and 2 $\frac{1}{2}$ d. for externally stained leaves.

CALABAR BEANS are now offered at 9d. per lb.

CALUMBA ROOT.—247 bags were offered in drug sale and nearly all disposed of, holders offering freely. The bulk of the root was of ordinary to rarely fair quality, and realised 1s. to 20s. 6d. per ewt. Good picked yellow root is held at 5s. per ewt.

CANADA BALSAM.—There are on the market 3 casks of bout 4 ewt. each, of very superior pale yellow quality, which were bought in at 1s. 6d. per lb., for the entire quantity.

CANELLA ALBA shows no improvement. 24s. per cwt. was aid for a small parcel of fairly pale but broken quill; other lots are held at 25s. per cwt.

CANNABIS INDICA.—Fifty bales good green quality are sold at 3 $\frac{1}{2}$ d. per lb.

CANTHARIDES.—The demand appears rather better, 7s. 6d.

per lb. having been paid for good new *Russian* flies, and 5s. 11d. per lb. for ordinary quality. *Chinese* blistering beetles are quoted at 5s. 6d. per lb.

CARDAMOMS.—About 120 eases were offered and mostly sold, in nearly every instance at an advance, and for some lots as much as 6d. per lb. dearer than in last sale. The following rates were obtained:—*Mangalore*, fine pale smooth pods, 3s. 1d.: ditto but smaller, 2s. 2d.: bold brown, 1s. 4d.; yellow and brown mixed, 1s. 5d.; small brown, 1s. 3d. per lb. *Ceylon-Malabar*, good bold yellow eliptic pods, 2s. 3d.; good pale medium size, 1s. 8d. to 2s.; fair plump palish, 1s. 6d. to 2s. 1d.; good but brown mixed, 1s. 9d.; small plump, 1s. 6d.; very small, 1s.; ordinary partly empty and split pods, 7d. per lb. Seeds sold at 1s. 6d. to 1s. 8d. per lb.

CHIRETTA.—2d. per lb. was offered for a parcel of 20 bales of fair quality.

CINCHONA BARK.—In sale to-day a few lots *Huanoco* and *Guayaquil* were sold at previous rates, also a lot flat bright yellow *Calisaya* at 1s. 10d., and a hale slightly damaged *South American* red bark at 3s. 7d. per lb., a very cheap picee. The dispute between the English and Dutch brokers concerning the relative merits of London and Amsterdam as einchona markets has lately broken out with renewed vigour, after having been latent for some time. Each side tries to prove that on its own market cinechona realises the highest picee, the Duteh traders being naturally desirous to seure the entire supply of Java cinechona for Amsterdam, while the London brokers are doing their utmost to crush a market which is the only one that threatens to become a danger to English supremacy. At present the controversy is principally conducted by Messrs. I. A. Rueker & Bencraft and Brookes & Green on the English side, and Messrs. Moens & Van der Sleen and Wischerhoff for the Duteh brokers. Messrs. Brookes & Green are, we believe, the only London house through whom Java cinechonas of direct import are sold at present, while Messrs. Moens & Van der Sleen are the firm with whom the late Mr. Moens was connected. The Duteh brokers base their claim that the Amsterdam unit is a higher one than the London upon sales made at the last Amsterdam auctions, of lots analysed by the late Mr. Moens; but the English critics hint that these lots are made to apparently show a high unit by the inclusion among them of purely druggists' barks, which could not be fairly counted, and they, moreover, question the accuracy of the Dutch analysis.

Messrs. Rueker & Bencraft, in their circular of October 21, say that they have the authority of the largest London merchant in support of their statement that higher pices are paid on this market than at Amsterdam. They observe that: "All barks offered and sold during the year in London and Holland are analysed by the buyer, who is the authority for our statement. The same chemists in the same laboratory work out the results for him, and as he is one of the largest—at the present date we believe the largest—buyers of bark in the world, we imagine his opinion will carry weight and practically decide this vexed question. He endorses every word we have said as to the superiority of this market. In addition to this we know that another large buyer interviewed him on this subject, in order to compare results, and that it was mutually agreed between them that far and away the cheapest bark sold this year was at the last sale in Holland. Again, we have put the question to another large buyer, a gentleman whose firm's name is a household word in the bark trade, and he assures us that there is no doubt about the matter, and that the causes are not far to seek. We believe we are correct when we state that the representatives of the two former gentlemen bought between them about three-fourths of the whole Duteh sale. Only a short time ago a consignment of 200 bales of Java bark was carefully bulked and divided, half going to Holland, half to London. The shippers made a *bonâ-fide* attempt to solve the question of markets for themselves, the result being that their experiment cost them 120%; the 100 bales sold in Holland realising 120% less money than the 100 bales sold in London."

So far as quantity is concerned, the einchona production of Java is infinitesimal compared to that of Ceylon, about 300,000 lbs. having been shipped from the former island during the first nine months of the year, against about 9,400,000 lbs. from Ceylon and 700,000 lbs. from British India. The Java bark,

however, contains a very high average of alkaloids, and it would appear that the extension of the cultivation in the island will be comparatively much larger during the next few years than in Ceylon or British India. Moreover, the Dutch-Indian Government are the principal shippers of Java cinchona, and, whatever private growers may do, it is not likely that official patronage will be withdrawn from Amsterdam. London has, during late years, considerably increased her importance as a bark centre at the expense of New York, Havre, and Paris; and the supplies of cultivated South American cinchona, which are likely to increase largely within the next few years, are almost certain to find their way to London. The cultivation of cinchona in Jamaica has not, so far, been a success, neither has that in the Central American Republics, but it is reported that the trees are doing well in Mexico, and that the first produce of a large plantation at Cordoba may ere long be placed on the market. A few parcels have recently been received from the African West Coast, but unless the quality of that cinchona is greatly improved, the latter region is scarcely likely to become a factor of importance. The Dutch Minister of the Colonies has agreed to the request of the Amsterdam cinchona trade, who memorialised some time ago in favour of eight cinchona sales annually, to be held on dates fixed in advance. The new system is to come into operation in 1887, and will be continued during 1888.

COCAINE (CRUDE).—A case, containing 3,765 grammes, just arrived from Lima, was offered in sale. The analysis was given as follows:—

Crystallisable cocaine	..	..	..	91·4
Ash ..	..	..	..	50
Moisture, &c.	..	..	..	3·3
				100·0

The whole was bought in at 10*d.* per gramme. We understand that one of the principal English makers offered 4*½d.* per gramme, but this bid was declined. We have described this cocaine, which is extracted from the leaves in Peru, and of which frequent shipments are received at Hamburg, in a recent issue.

COCA LEAVES remain quite neglected. 47 bales offered in sale this day found no purchasers.

COLOCYNTH.—The 3 packages shrivelled Spanish apple offered in last sale were again put up; 2*¾d.* per lb. was refused for the lot.

COPAIBA BALSAM.—The advance in America has reacted on this market, where considerable purchases have lately been made for account of New York firms. 1*s.* 8*½d.* per lb. has been privately paid for fair quality, and in sale 8 casks of rather dark colour were held at 1*s.* 9*d.* per lb.

CUBEBS are very firmly held, notwithstanding the recent considerable arrivals from New York. It is reported that 16*l.* 10*s.* has been privately paid for good fruit, and 14*l.* 5*s.* for spurious berries, though the accuracy of the latter statement would seem questionable. In sale to-day 9 packages sold readily; fair berries mixed with stalk at 15*l.* 5*s.*, dusty berries of mixed colour and containing a good proportion of stalk at 14*l.* 5*s.* Five cases spurious cubebs imported from Bombay were withdrawn.

CUSCUS GRASS.—18 cwt. good pale quality in bundles bought in at 21*s.* per cwt.

ERGOT OF RYE.—The market is decidedly easier, and no demand is manifested. For good fresh Spanish ergot 1*s.* to 1*s.* 1*d.* is solicited, and 9*d.* per lb. for fair but dusty Russian.

GALLS.—Damaged white sold at 45*s.* to 46*s.*; ditto green at 57*s.* per cwt. *Istrian galls*, which have been neglected for several years, again meet with more attention on the Continent, and are being bought up at an advance. The new crop, which is now being gathered, promises well.

GENTIAN ROOT.—Values are well maintained, 17*s.* 6*d.* having been paid for fair root. Another parcel is offering at 17*s.* per cwt. In Southern Europe there has been an upward movement in the article lately.

GUARANA.—5*s.* 4*d.* per lb. was refused for a case, which is held at 5*s.* 6*d.* per lb., a comparatively low figure.

GUM AMMONIACUM neglected; 17 cases were offered, but

none sold, although a bid of 32*s.* was made for fair, partly darkish drop.

GUM ARABIC.—The market for better classes continues to improve, but, on the other hand, common gums of all kinds are neglected. In *Turkey sorts*, consequent upon an American demand, we have had an excited market, the advance on the week being fully 10*s.* to 15*s.* per cwt. Most of the gum bought is being cleared away, and we shall therefore be left with a stock of under 100 bales. The private sales comprise about 150 serons at 9*l.* 5*s.* to 10*l.* 10*s.* for fair, to 10*l.* 10*s.* to 11*l.* 5*s.* for good. In drug sale, 11*l.* 15*s.* was paid for good sorts. Of *East Indian* gums, fine Aden has been sold at 107*s.* 6*d.* to 112*s.* 6*d.*, an advance of fully 10*s.* per cwt. Fine Amrads are 5*s.* to 10*s.* per cwt. dearer, at 5*l.* 15*s.* to 7*l.* 5*s.*, while white siftings fetch 78*s.* to 98*s.*, according to quality; but the commoner classes meet little competition. Barbary character is quoted 5*l.* 10*s.*, and small sales have been made therewith. Ghattis of good quality bring very full prices; but low pickings and siftings are rather cheaper. Private sales of Mogadore Anrad have been made at 92*s.* 6*d.* per cwt. In *Senegal* very little business is passing; in *Bordeaux* prices are reported higher. Quotations remain: Galam, 6*l.* 2*s.* 6*d.* to 6*l.* 5*s.*; Bas du Fleuve 6*l.* 7*s.* 6*d.* to 6*l.* 10*s.*

GUM ASAFETIDA.—One hundred cases, imported some months ago, were placed in safe, but only a small proportion was sold, at 37*s.* to 38*s.* for fair pinky, 26*s.* 6*d.* to 33*s.* for ordinary soft to softish.

GUM BENJAMIN.—A few cases *Siam* were shown, but all bought in at previous rates. *Sumatra*, very good thirds; good almondy grey sold at 9*l.* 17*s.* 6*d.*; white almondy centres and brown border at 9*l.* 12*s.* 6*d.*; dark false-packed thirds at 5*l.* 12*s.* 6*d.* to 5*l.* 15*s.*. *Penang* thirds realised 6*l.* 15*s.* to 6*l.* 17*s.* 6*d.*; and low IV *Palembang* 42*s.* per cwt.

DRAGONSLOOD quiet at 7*l.* 2*s.* 6*d.* per cwt. for rather seedy cake of good colour. A few cases very old broken finger in reed sold without reserve at 5*l.* 5*s.* to 5*l.* 12*s.* 6*d.* per cwt.

GUM ELEMI.—The price asked for fair whitish quality is 24*s.* 6*d.* per cwt.

GAMBOGE maintains previous rates, and sells at 10*l.* 5*s.* for fair but rather dark, damp and very broken pipe, 9*l.* 15*s.* to 9*l.* 17*s.* 6*d.* for ditto, rather blocky, and 9*l.* 5*s.* for dull pickings.

GUM GUIACUM.—Fourteen packages all sold, fair block at 7*¾d.* to 8*d.* per lb., ordinary ditto at 3*¾d.* to 5*d.* per lb.

GUM KINO.—Eight cases sold at 45*s.* to 46*s.* per cwt.

GUM MYRRH.—Steady at unchanged values; 5*l.* being still quoted for good pale *Aden* sorts. In auction nothing was sold; dull *Bombay* pickings were bought in at 75*s.*, much beyond value; and opaque *Bdellium* at 14*s.* per cwt.

GUM OLIBANUM is in good demand. Fine bold tears are quoted at 55*s.* per cwt., good second quality at 42*s.* to 50*s.*, garblings at 16*s.* to 18*s.*, and siftings at 10*s.* to 12*s.* per cwt. A Trieste correspondent claims for his port that it becomes more and more the great centre for this article. He states that this is principally owing to the favourable situation of the port of Trieste, and the excellent way of sorting in vogue there, by which the requirements of each country are exactly met. There has been a good demand for prime white picked drop and pea-size, and higher prices are now asked for that variety.

GUM TRAGACANTH.—Fine white is still held at 10*l.* per cwt., and fair palish at 8*l.* 5*s.* per cwt.

HONEY.—There was again a good supply (842 packages) of new *Californian*. The smaller part of this, in the hands of one broker, was all bought in over value, but a second broker sold the whole of his goods at about 1*s.* advance on last sale, viz. good white, 30*s.*; good yellow, 22*s.* to 23*s.* 6*d.*; pale buff, 21*s.*; amber, 19*s.*; dark buff, 18*s.*; orange, 17*s.* 6*d.* to 17*s.*; brown, 16*s.* to 15*s.*; very dark brown, 12*s.* 6*d.* per cwt. Of *Jamaican* and *Chilian* honey nothing was sold.

INSECT FLOWERS.—The following was the statistical position of Dalmatian flowers at Trieste on October 1:—

	Tons
Stock of 1885 crop on June 1	94
Landings of new flowers from June 1 to September 30 ..	265
Total	359
Delivery from June 1 to September 30, including nearly the whole of the old crop	223
Stock on September 30	136

against 231 tons on September 30 last year. This stock consists of $56\frac{1}{2}$ tons *Città Vecchia*, or partly closed flowers, and $79\frac{1}{2}$ tons *Ragusa*, or open flowers. Genuine wild *Criostrian* and *Montenegrine* flowers have all been concentrated into one hand. The demand during the winter months is not, of course, likely to be so large as has been the case during the summer.

IPECACUANHA.—There was a large quantity offering, 87 serons all told. The bulk of this consisted of root which was landed some time ago, and which was offered rather precipitately to-day, presumably because fresh arrivals are just landing. The market opened flat, but improved as the bidding went on, and closes very firm, at about 1*d.* advance; 3*s.* 5*d.* per lb. being paid for fine sound annulated, and 3*s.* to 3*s.* 2*d.* for partly woody and damaged quality.

IRISH MOSS.—Five bales of dark colour bought in at 15*s.* per cwt.

JABORANDI LEAVES.—Thirteen bales all sold, at 8*d.* for sound, and 5*d.* to 6*d.* per lb. for damaged leaves.

LAUREL LEAVES are becoming scarce in Dalmatia, and find purchasers at somewhat higher rates. The present crop has to be kept over until next summer before it is fit for export.

LIME JUICE.—Ordinary *Jamaica*, containing a good deal of mucilage and other impurities, is held at 1*s.* 3*d.* per gallon.

LIQUORICE ROOT of low weak quality bought in at 10*s.* per cwt.

MANNA.—We are in possession of the following from Sicily with reference to the reported failure of the crop:—At the commencement of the season the prospect was an excellent one, and the incisions in the trunks of the manna trees were exceptionally rich in yield; but the gathering was repeatedly interrupted by rain-storms, and on the whole the yield has therefore been an unfavourable one. But it is questionable whether there is any real foundation for the alarming reports which have been promulgated by local speculators, and it is thought in many quarters that a reaction will take place if only consumers keep back their orders for some time. It certainly appears strange that until now there has not been any reliable statement published concerning the quantitative result of the crop. The varieties known as *canellata capace* and *broken canellata* are gradually losing favour, and the price for these does not appear to have been affected by the boom.

MUSK is dear, and there no are fine *Tonquin* pods offering. Good old-fashioned *Tonquin* pods of the first pile are selling privately at 70*s.* to 71*s.* per oz.; in sale, 68*s.* was paid for fair but damp, small to medium pods with underskin, and 22*s.* for rough third pile. *Grain* sold at 67*s.* for first, 51*s.* for second, and 35*s.* 6*d.* for third quality; trimmings and skins at 5*d.* to 4*s.* 2*d.* per oz., according to quality. The exports from Shanghai during the month of August are given as follows:—

	Aug. 1886	Aug. 1885
	Cts.	Cts.
To London..	.. .. ..	8 $\frac{1}{2}$ 4
To Marseilles	4 $\frac{1}{2}$	45 $\frac{1}{2}$
To Hamburg	2	0
Total	15 $\frac{1}{2}$	49 $\frac{1}{2}$

A catty equals 1 $\frac{1}{3}$ lb. Private advices from the interior received at Shanghai state that a great diminution in the number of musk deer has been caused by the unrestricted hunting which has prevailed during recent years. The arrivals of musk at Shanghai are expected to be small in the next future, the killing of deer having been prohibited by Government for the period of one year. It must not be forgotten, however, that similar reports have been frequently spread before now.

NUX VOMICA.—300 packages were all disposed of, fair

Bombay seeds at 8*s.* to 8*s.* 3*d.*, dull ditto at 6*s.*, and good palish *Cochin* at 8*s.* 6*d.* per cwt.

OILS (ESSENTIAL).—*Almond oil*, pressed from apricot kernels, will be very dear this year; prices have already advanced 30 per cent. in Trieste, apricots being scarce this season. Ten cases unworked *China Star Anise* bought in at 6*s.* 3*d.* per lb. In *Bergamot* there is not much doing; the average price quoted is 6*s.* to 7*s.* per lb. For 6 cases very good unworked *Cassia* 2*s.* 5*d.* per lb. was refused, owner holding at 2*s.* 8*d.* per lb. A single case fine pale *Cinnamon* was sold at 2*s.* per oz.; while for dark brown *Cinnamon leaf* 1 $\frac{1}{2}$ *d.* per oz. was refused. Of *Citronella* a good quantity was offered, and 100 cases were sold on c.i.f terms, for prompt cash, at 56*s.* to 57*s.* per case. *Clove oil*, English, is quoted at 5*s.* 9*d.* to 6*s.* per lb., but in sale 2 drums, dull yellow to violet in colour, were disposed of at 3*s.* per lb., after good competition. For *Turkish Geranium* some demand has been manifested, and a few small parcels have changed hands at 7*s.* 6*d.* to 8*s.* per lb. *Ginger Grass* held at 3*d.*, and *Grass oil*, with a slight turpentine flavour, at 1 $\frac{1}{2}$ *d.* per oz. *Oil of Laurel Leaves*.—Dalmatian oil of the new crop will be procurable about the end of November; nothing is left on the spot from last year. In foreign oil of *Lavender* nothing is doing, although the French crop is very good this year. The prices for foreign oil range from 2*s.* 6*d.* to 6*s.* 1*d.* per lb. In Messina the price for new oil of *Lemon*, for forward delivery, has fallen from 5*s.* 6*d.* to 4*s.* 9*d.* per lb. within the last month; on the spot here 5*s.* to 6*s.* 9*d.* is asked, and there are buyers at former price. Good water-white oil of *Nutmegs* is held at 4 $\frac{1}{2}$ *d.* per oz. *Otto of Rose* remains firm at unchanged prices; no sales are reported this week. *Orange* is in good demand at 7*s.* 3*d.* per lb. There is very little of this oil on the spot. Good *Menthol* crystals are held at 8*s.* on the spot, but for arrival lower offers are made. The prices of French *Rosemary* range from 1*s.* 10*d.* to 3*s.* 3*d.* per lb. We hear from the source of supply of the Dalmatian essence that the remainder of last year's crop (which was a considerable one) has been quite used up. The 1886 crop will in all probability be a smaller one, and it is expected that the local holders will ask more money. *Sandalwood* is held at 8*d.* per oz.; while for 2 cases H.G.H. oil of *Spearmint*, 30*s.* per lb. is demanded. *Wintergreen* bought in at 10*s.* per lb. Of *Ylang-ylang* 22 bottles were shown. Good quality is held at 10*s.* per oz., an offer of 9*s.* being refused. Two bottles were offered of a mahogany-coloured ylang, and it was explained that the oil had assumed this colour through the original bottles breaking and the contents filtering through the mahogany sawdust in which they were packed. From 2*s.* to 4*s.* 3*d.* per oz. was offered in vain for this oil.

DUGONG OIL, an Australian correspondent writes on September 17, has fallen from 22*s.* to 15*s.* per gallon in Brisbane, but is in slack demand.

COTTON-SEED OIL.—In London values remain almost unchanged, 16*s.* for *crude*, and 18*s.* 15*s.* to 19*s.* for *refined* on the spot. In Hull the spot price is higher, both for *crude*, at 15*s.* 5*s.*, and *refined*, at 18*s.* in casks. Reviewing the New York market on October 12, the *O. P. and D. Reporter* states that the first sample of new oil was exhibited on 'Change that day, but it excited very little interest. Most firms in the South are now in the combination, and there are very few outside sources from which to receive supplies. It is expected that the revolution of business methods caused by the consolidation of so many different branches of the industry will result in a weeding out of traders on 'Change. The shippers who have good foreign connections, are not affected by the change.

PETROLEUM.—Quotations for oil are slightly below those given in our last report. *American* on the spot being 5 $\frac{9}{16}$ *d.* to 5 $\frac{5}{8}$ *d.*, November–December 5 $\frac{3}{16}$ *d.*, January–March 5 $\frac{5}{8}$ *d.* to 5 $\frac{11}{16}$ *d.*. The market closes steadier, but there is an entire absence of speculation. For *Russian* oil there has been more inquiry at 5 $\frac{1}{2}$ *d.* to 5 $\frac{3}{4}$ *d.* spot, and 5 $\frac{3}{4}$ *d.* per November–December or January–March. The *O. P. and D. Reporter* states that lately more speculative interest has been manifested, the transactions on the local exchange for the six days ending October 12 footing up 15,854,000 barrels, against 10,706,000 barrels for the week preceding. Trading has, however, been

of a spasmodic character. The principal features of interest are the wider range in prices and the sustained effort on the part of the "bull" party, which has been rather more successful than the previous move in that direction.

ORRIS ROOT.—Twelve bags fair white *Florentine* sold at 25s. per cwt. with good competition.

PERUVIAN BALSAM.—Sales of fair quality have been made at 4s. 9d. per lb.—a very low price.

RHUBARB.—The tone of the market is decidedly firmer, and several lots realised an advance to-day. Nearly 200 chests were offered, of which the greater part sold; *Shensi*, round, small pieces, but of excellent appearance and beautiful fracture at 3s.; ditto bold flat, rather rough, at 2s. 4d. to 2s. 6d.; round, badly trimmed, one-third dark fracture, dark coat, 1s. 8d. to 1s. 9d.; bold flat, 1s. 10d. per lb. *Canton*, good round and flat mixed, rather woody, 1s. 1d.; ditto low wormy, 7d. per lb.; small but good *high-dried*, 9½d.; bolder, but unsightly ditto, 8d. per lb.

SARAPARILLA firm, especially the *Jamaica* variety, which sells at 1s. 10d. for sound grey to 1s. 5d. for badly damaged. *Guayaquil* is worth 1s. 4d., and *Honduras*, *Eagle* and *Snake*, sells at the same price. For the latter variety New York is now the principal market, and the stock there is said to be very large, over 1,200 serons. It is said that the principal American importers hold contracts with the central American Governments, by virtue of which nearly all this sarsaparilla is sent to New York. *Mexican* is held at 5d. per lb. here, but only lower prices could lead to business.

ANISE maintains last values: most of the new seed is now in dealers' hands, and the tendency to hold stocks for better prices is more marked. *Russian* seed, 24s. to 25s. per cwt.; *Alicante*, 50s.; *Turkish*, 30s. to 32s.

CANARY SEED.—Business has been more active during the last few days, but as long as the bulk of this year's Turkish crop is withheld from our markets, buyers exercise extreme caution, and will only buy sufficient to cover their wants in the nearest future. For Continental account a few parcels have been taken from Liverpool, but holders have recently raised their prices there, which has stopped trade for the present. The prices paid for ordinary *Turkish* seed were 46s. to 47s., and for finest quality, 47s. to 49s. per 464 lbs. ex warehouse. Contrary to previous experience, we understand that this year we may expect to receive supplies from *Russia*, but so far no details have come to hand yet. In *Morocco* and *Spanish* seed a good steady trade has been done at prices differing very little from those quoted a fortnight ago. *Dutch* of very fine quality realises up to 58s.

CARAWAYSEED.—Holland has again taken the lead in dictating a sharp rise, as much as 36s. to 38s. per cwt. is now asked for good *Dutch* seed. The trade here will not pay these prices yet.

CUMINSEED.—Very firm; *Morocco*, 28s. to 30s. per cwt.

FENNELSEED is more inquired after, at 20s. to 27s. per cwt.

FENUGREEK is quiet, at 8s. to 8s. 10s. per ton.

LINSEED.—Extra-fine is held for extreme prices, and only very few districts are delivering that grade this year. *Sicilian*, 50s.; fine *Canadian*, 50s. to 52s.; *Dutch*, 49s. to 50s. Fine machine-cleaned *Danubian*, 44s. to 46s. per 424 lbs. ex warehouse. *East Indian* varieties are also firm; *Bombay*, 44s.; *Calcutta*, 40s. per 416 lbs.

SENNA sold at dearer rates. There was a good supply of new *Tinnevelly*, but most of it left was undesirable as regards quality.

SHELLAC.—Prices have been fairly maintained, but there has been little doing in *Orange* varieties. In public sale on Tuesday about 140 chests, mostly *button* lac, were disposed of, partly without reserve, at slightly easier rates:—Fine first blood, unworked M in diamond BLR at 59s., Calcutta terms; good first Ralli BLA1 at 57s. to 58s.; dark second B1 at 53s.: fair blocky second B2 at 54s. to 55s. Good free AC Garnet remains at 50s., at which price it is firmly held. The bulk of the garnet on our markets costs the holders very much more than its present value. Of *button* there is a superabundance offering at present. TN *second orange* on the spot 48s. per cwt. Calcutta reports dated October 5 state that the

recent improvement in the shellac market continues, the sales for the fortnight footing up about 2,500 cases. The market closes with rather less demand, but full prices asked. *Button* lac has not come in very freely yet, and scarcely enough has been done to establish prices for the new manufacture.

SULPHATE OF QUININE is firmer, and there has been more business doing, including *Whiffen* and *Brunswick* in bulk at 2s. 1d. per oz.

TOLU BALSAM decidedly dearer. For small parcels, 1s. 7½d. to 1s. 8d. has been paid; in auction 1s. 7d. was refused for good, fairly hard balsam.

ZEDOARY Root.—Eleven robbins sold at 3s. per cwt. Large quantities have been received at Trieste, where there has been quite a fall in price.

THE AMERICAN MARKETS.

NEW YORK, October 15.

THE volume of business transpiring in the drug market is a proof of the general improvement that has been going on for the past two months. A hand-to-mouth policy is to a great extent still pursued, but buyers show more disposition daily to venture on larger lots. The demand for export is reported dull.

The prices sterling (in parentheses) are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can, therefore, see at a glance the course of this market compared with their own.

BEESWAX.—There has been no demand, and prices, it is thought, cannot go lower; 23½c. for pure country wax appears cheap (5s. 15s.).

BALSAMS.—*Copaiba* still keeps on the upward move. *Pará* has been sold at 40c. (1s. 9½d.), and 15 cases *Angostura*, the only arrival during the month, were largely competed for, and brought 38c. (1s. 7½d.). *Tolu* is firm at 36c. (1s. 7½d.), and only small lots offering at that. Holders appear to raise their pretensions with every sale. *Canada* is now reported scarce at the source of supply, and higher rates are quoted here, as high as 30c. (1s. 4½d.) being demanded for prime bright.

COTTON-SEED OIL.—The market is weak and tending lower. The new season's crushing is now coming on the market, but meets with little attention.

QUININE.—Although the demand is still very good, the market is lifeless, and appears to be overstocked. Good German brands are jobbing in small lots at 48c. (2s., 5 per cent.), while at least one of the domestic makers is selling at the same price. The official price of P&W in ounces is maintained at 65c. (2s. 9d. less 5 per cent.).

OIL PEPPERMINT.—The position as reported last week is unaltered. The demand is small, but lower prices are not expected. When the market begins to move under the stimulus of free orders from Europe, there is nothing in the position of affairs here to prevent a rapid rise. Stocks in dealers' hands are small, and holders in the country are very cautious, and a difficult class of people to handle. When parties want to buy them at once raise their quotations; and although they are willing enough to sell now at reasonable rates, there is nothing doing owing to the depressed state the whole market has fallen into.

ROOTS.—*Seneca* is now tending higher. The low prices it was offering at here, owing to the lack of demand, have brought forward large buyers, who are satisfied there is money in it if held firmly for a few months. Prime western Minnesota is worth 44c. (2s. 1d.). *Serpentaria* is quoted at 38c. (1s. 10d.). *Mexican Sarsaparilla* is dearer, good Tampico being now held for 9½c. (5s. 1d.).

GUM GUAIACUM.—A consignment of good ordinary in barrels brought 12c. (7d.) for home consumption.

SPERMACETI.—A sudden demand from London has sent the prices up to 45c. (1s. 11d.). The season for its production, as well as its consumption, is about to set in, and from present indications there is little prospect of lower rates.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Chrysarobin. What is it?

SIR,—Your remarks on this subject are quite opportune. A little inquiry into the antecedents of the remedy clearly establishes your case. While it has been usual in this country to describe the crystalline matter extracted from Goa powder as "chrysophanic acid," in the German Pharmacopœia it is called "chrysarobinum." Anyone who compares the characters and tests of the P.G. with those of the P.G. will see that the former have been taken from the latter. The nature of the error into which our Pharmacopœia fell is quite evident. The *materia medica* editor gave a correct description of Goa powder, while the chemical editor gave a correct description of chrysarobin, and these passed on to publication without the slip having been noticed. To pretend that araroba or Goa powder and chrysophanic acid or chrysarobin are the same thing is an audacious contention. It is nothing to the purpose to say that chrysarobin contains more than one chemical compound, and is therefore not a definite substance. It is what we may call a pharmacologically definite substance, which araroba certainly is not. To my mind there can be no question that chrysarobin (chrysophanic acid) ought in all cases to be prescribed.

Yours truly,
CHRYSAROBIN.

Proprietary Packages.

SIR,—In your report (September 18) of "Goodall, Backhouse & Co. v. Whiteley," it is said that "the defendant sent out his sauce in bottles which had formerly contained the plaintiff's sauce, having impressed on them the words 'Yorkshire Relish.'" It is often a wonder to me that makers of proprietary articles are so fond of stamping their names indelibly on their packages. They seem to invite imitation. Another objection is that the vessels are practically useless for any other purpose. A person takes a course of Hop Bitters and finds himself burdened with half-a-dozen clumsy and useless bottles. The retailer will have nothing to do with them, though perhaps he offends his customer by declining them. The marine-store dealer looks at them, and reluctantly offers a penny for the lot. On the other hand, Crosse & Blackwell's jelly bottles, which hold just a pint and bear no marks, can be used for a variety of purposes. Empty patent-medicine bottles are at present a nuisance alike to the consumer and the retailer, and the same remark applies in some degree to embossed tins and pots with burnt-in labels.

RETAIL MANAGER. (223/4.)

Druggists' Charges.

SIR,—I have been thirty years in the trade, and from my varied experience may be said to know something of the ins and outs of our profession. But the past ten years have given me a drastic dose, from the effects of which it will take a life-

time to free me. The evils from which we suffer appears to me to be due very largely to the ignorance and mistaken action of druggists themselves. There are men in the business whose knowledge of the simplest elements of their calling, and whose acquaintance with the prices of the drugs they are called upon to retail or dispense are of the crudest description. It is not many days ago I had the following prescription presented to me to dispense:

Pancreatin	..	..	..	..	..	5 <i>j.</i>
Acid mur. dil.	..	..	..	..	..	3 <i>j.</i>
Syr. aurant.	..	..	..	..	..	3 <i>j.</i>
Aqua ad	..	..	..	..	..	3 <i>v.</i>
Mft. mist. 3 <i>ss.</i> omni nocte.						

On making up the prescription and handing it to my customer, I found, during conversation, that the mixture as prepared by a previous chemist was thick and unpalatable, and that 5*s.* had been charged for it. It was evident to me that an ounce instead of a drachm of pancreatin had been used, and although freely admitting that the sign was very indistinct, no man who knew his business would have dispensed an ounce of pancreatin with the dose at a twelfth part. To-day I had the following receipt presented to me to be made up:

Opium, in powder	..	..	..	6 drachms
Squills, in powder	..	..	..	"
Ammoniacum, in powder	..	..	..	"
Assafetida	..	..	..	½ oz.
Camphor	..	..	..	½ oz.
Liquorice powder	..	..	..	2 oz.
Soft soap	..	..	..	to make 6 balls

I charged, knowing the character of my customer, 3*s.*. Judge of my surprise on being informed that a brother chemist, not twelve miles hence, never charged more than 1*s. 6d.*, and that one member of our noble profession had discharged his duties for the moderate price of 1*s.* I leave your readers, Sir, to point the moral and adorn the tale.

October 18.

ANTI-HUMBUG. (24/232.)

Calculations in Volumetric Analysis.

SIR,—I shall feel greatly obliged if you would enlighten me upon the following.

The Pharmacopœia under ac. acetic dil. says:—"440 grains by weight require for neutralisation 313 grain-measures of the volumetric solution of soda, corresponding to 4.27 per cent of real acetic acid $\text{HC}_2\text{H}_3\text{O}_2$. One fluid ounce, therefore, contains nearly 19 grains of real acetic acid."

How is this calculation obtained? i.e. how is the percentage of real acetic acid found, and how is the 19 grains of real acetic acid calculated, and what is the rule in this and other similar cases? I merely take ac. acetic dil. as an example.

Yours respectfully,

Northallerton, October 18.

G. E. PEARSON.

[1,000 grain measures of the volumetric soda solution contain 40 grains of caustic soda, that is the molecular weight in grains of NaHO (= 40). A molecule of NaHO exactly neutralises one molecule of acetic acid ($\text{HC}_2\text{H}_3\text{O}_2 = 60$), so that 1,000 grain measures of the soda solution exactly neutralises 60 grains of real acetic acid. Therefore 1 grain measure equals 0.06 grain of acetic acid, and 0.06 and 313 = 18.78. This divided by 440 gives the percentage, and as 440 grains by weight of the dilute acid are a fluid ounce, it follows that that quantity contains 19 grains nearly. The rule to follow in similar cases is to find out the relation of the substance tested to the test solution by means of an equation, and reduce this to the grain measure equivalent. This equivalent is multiplied by the number of grain measures of the test solution, and the percentage is formed by dividing the result by the weight in grains of the substance tested. But some practice in volumetric analysis is necessary to understand the matter thoroughly.]

The Paste Pot.

SIR,—The paste pot is not a very inviting subject either to write upon or to read about, but as it is an article in daily requisition, and so often presents such a sickening appearance to the eye, a few words about it may not be out of place. Having often been annoyed by the unhealthy appear-

ance of my paste pot, and being of opinion that everything pertaining to the business of a chemist and druggist should be the essence of cleanliness and neatness, I set myself to work to improve it. In the first place, I procured an ordinary 3-lb. white-glazed jar, which I got a tinner to fit me with a lid, and to cut a hole through the centre about an inch in diameter, this for the handle of the brush to pass through (I use a 6d. sash tool). I then took the jar to a china-mender, who drilled me one hole in each side of the jar about an inch from the top; through these two holes I passed a piece of brass wire, and turned the ends of the wire down a little on the outer side of the jar, thus firmly securing it in its place. This formed a scraper for the brush, instead of using the lip of the jar as formerly, thus keeping the jar sides free from old caked paste and the handle of the brush free from an unsightly mass of old fusty paste; and now I have a paste pot which is always clean, the paste never hard and lumpy, the brush always in condition for use, and which I should not be ashamed to produce before a customer or take into my sitting-room, if needed, when doing one of those thousand-and-one jobs which wives are so fond of asking "the handy man" to do.

Sir, I fancy some of your readers exclaiming on reading my communication, "Fad!" "Bosh!" "What a fuss about a paste pot!" &c. Well, sir, to all such my paste pot is but a fad and fancy, but I am sure any of your readers who, like myself, are fond of having their tools of the best, and their business habits of the neatest, will thank me for the hint.

My jar cost 4d., cover 6d., brush 6d., holes drilling 4d., wire 1d. = 1s. 9d. This seems a lot of money, but the pleasure of use when contrasted with the experience of former days more than compensates for the cost, and there is no reason why my paste pot should not last to the end of my natural life.

Good-bye, my old paste pot, good-bye,
At best you're a dirty old thing,
We part, but I leave not a sigh;
Remembrance no pleasure can bring.

You've bothered my mind many a day,
And caused me heartaches not a few
Away to the dust-bin, away—
I'll change the old love for the new.

October 6.

ACID TART.

Meeting Competition.

SIR,—Here is my experience on the point raised by a "Struggling Brother." I had a large sale for one of my preparations which I sold at the old prices. After the cutting set in the sale went down gradually 40 per cent. I reduced the prices from 1s. 1½d. to 10d., and 2s. 9d. to 1s. 9d., and increased the sales by 80 per cent. the first year, and am inclined to think it is the only way to meet competition.

Yours, &c.,
ALPHIA. (239/25.)

The Proverbs of Solomon for Chemists.

SIR,—"S. L." asks why the Book of Proverbs should be included in a chemist's library. I wish to give a few reasons why I agree with the competitor who included them in his catalogue. First, no fool can be a chemist, and the book teaches wisdom. The Proverbs also teach habits of industry and economy, virtues that many in our profession lack. Solomon says he went by the field of the sluggard, and lo! he found it grown over with what should not have been there. I have been in many chemists' shops, and have seen dust and dirt prevailing where plate-glass and mahogany should have shone forth. It teaches temperance and the best way to live. It shows the benefit of a good wife. I should advise "S. L." to study the book every Sunday for at least six months; let six days suffice for the reading of your valuable Journal, THE CHEMIST AND DRUGGIST. Those who complain of long hours and tedious labours ought to be glad to throw aside everything connected with their dismal occupation (as they call it) at least one day in seven. Talk about shortening the hours of labour, getting bank-holidays, half-holidays every week, it is all nonsense; we have the divine command to labour six days and rest the seventh. But I am getting away from the subject.

I am, sir, yours truly,
J. H. E. (235/71.)

Anti-Vaccination Chemists.

Mr. Alfred E. Beilby, treasurer, Nottingham Anti-compulsory Vaccination Society, Old Radford, says it would certainly be interesting to know how many chemists are opposed to the compulsory enforcement of vaccination. "The secretary of the London Society for the Abolition of Compulsory Vaccination is a chemist, and I personally know many connected with our trade who, though not openly taking part in the anti-vaccination movement, have strong objections to the practice."

Chemists and Royalty.

SIR,—A while ago I noticed in one of your issues that a certain enterprising chemist in the North had presented a bottle of his choice perfume to a member of the royal family (who happened to be "passing that way"), which was graciously accepted, &c. It is rather late in the day to refer to this, but I fancied from your paragraph that Mr. Chemist was considerably elated by the success of his happy thought, and that THE CHEMIST AND DRUGGIST "smiled approval."

Now, lest you should think that the practice should be universally commended, and in order that my own mind may be relieved—for I have been very poorly ever since I read that paragraph—I am constrained to tell you that I am of opinion, and possibly others who do not write to you may think with me, that the little business so gleefully performed by Mr. Chemist was in the highest degree snobbish, and if I had been that royal person I should have considered Mr. Chemist's act as a piece of impertinence, and I should have administered a royal snub in the same way that I am informed H.R.H.'s brother did to a similar piece of officiousness which was attempted to be perpetrated upon him (also by a chemist), some while back when he was on a visit to this city.

I think that royal persons like to move about without being pestered with small presents the motives for giving which are extremely doubtful.

PHARMACIST. (31/236.)

[“Pharmacist” evidently writes in the interest of “royal persons,” which is very good and loyal of him, though why these exalted beings should object to have bottles of choice perfume presented to them we do not quite see. But if there happens to be a chance of a commercial advantage derivable when royal personages are about, we cannot see why chemists should be blamed for seeking it, even though they should meet with occasional snubs from the said royal personages.]

Query for Wholesale Pill-makers.

SIR,—A physician has stated that, should I not supply his patients with Bland's pills at a price fixed by himself, and much below usual dispensing prices here, there was nothing to prevent him ordering his patients to obtain direct for (including postage) 1s. 4d. or 1s. 6d. per gross. Can you, or any of your readers, inform me if such a custom holds with wholesale manufacturers, as up to this I was under the impression that prescriptions or retail orders were not filled by them.

I am yours,

“BLAUD PILL.” (237/55.)

Shop Hours Regulation Bill.

SIR,—It is with surprise that I notice the tone of many of the letters in your Journal. Most of the writers seem to ignore altogether the convenience of the public and the medical men, and not a few seem not to have distinguished between the functions of the grocer or the draper, and the important and responsible one of a chemist. Medical men necessarily call late on their suffering patients, and as a consequence medicines are wanted. If chemists were included in this Bill it would be most inconvenient for all parties. The chemist, who otherwise might be free to close at eight, or as soon after as he conveniently could, would find by this Bill that he was tied up by a hard-and-fast rule, which would be a constant source of worry to himself and the public. This new departure from freedom in dealing with the public, on matters of necessity and humanity, would be found a great hardship. I by no means advocate late hours;

the very reverse. I have been in business now over twenty-two years, and I have invariably closed punctually at the recognised short hours of the City, in which I reside; but my experience is that it would prove very inconvenient and annoying to the public, and a great hardship and trouble to the chemist, to have a hard-and-fast line regulating his shop hours. It is one thing for a chemist to close punctually when he can do so, but quite another thing to have a compulsory clause, with its fines and penalties. I trust therefore the chemists and druggists will be left to suit the different circumstances in which they may be placed, and entirely exempt from this Bill.

J. M., Phar. Chemist.

SIR,—It is extremely interesting to learn that Mr. Robinson has actually enjoyed some intercourse with a genuine Cockney, but it is hard to believe that a man who has committed himself to the absurd statement that the proposed "Early Closing Bill will affect all shops alike," can have had any experience of suburban businesses in the neighbourhood of London. As Mr. Fitch and "E. H. S." have pointed out, the effect of the passing of this Bill will be to benefit the large houses at the expense of the smaller ones, to increase the returns of the City chemist and diminish the receipts of his suburban brother, the greater proportion of whose business is frequently transacted between 7 and 10 P.M. I cannot help thinking, sir, that many of your correspondents present rather a pitiable spectacle, and are highly deserving of sincere commiseration, while on the one hand they prate glibly about the disastrous effects of long hours, and talk loftily about "sinking the man in the shop-keeper," in the same breath they whine about their evil fortune in being compelled (forsooth) to keep open on account of the ubiquitous man who declines to extinguish himself in order to gratify them, and for whose benefit they are now invoking a special Act of Parliament. Why have not these high-souled individuals the courage of their convictions? Why cannot they close at 8 P.M. and, ignoring their greedy and grasping competitor, "leave him to sink, like an eel in his own mud"? Their conduct might then command respect; at present it only excites contempt. Trusting you will do me the favour of insertion,

I am, yours truly,
EDWIN WARD.

26 Stamford Hill.

Spero (London, S.W.) (3/238) writes:—"As an apprentice who works daily from 8 to 11 P.M., may I be allowed to add my vote to the number which already swells your list in favour of the Bill." He advocates that a petition be drawn up for apprentices and assistants to sign in its favour. [Apprentices under eighteen may be reminded that from Monday next they cannot be legally required to work for more than seventy-four hours, meal-times included, per week.]

Mr. W. S. Potter, Plaistow, has been in business twenty-seven years, and sincerely hopes the Bill will pass through Parliament.

A Hard-worked Assistant writes in support of the Bill, but omits to enclose his name.

T. T. (a proprietor) on a post-card expresses his gratification at finding an overwhelming majority of chemists in favour of compulsory closing at eight o'clock. He has no sympathy with the remarks of Mr. Fitch, E. H. S., and others, pleading for late hours; neither does he envy the elevated (?) tastes of those who prefer standing behind the counter late at night, after other traders have closed, to sitting by one's own fireside, reading a good book, enjoying company of wife and children, or engaged in other interesting or social pursuits, even though he may be interrupted by an occasional caller.

10/241. *Menthol.*—It has been explained that a grocer with an "off licence" could not keep open beyond the hours named by the Bill.

SIR,—I have read and partially digested the scores of letters you have published in *our* Journal, and eagerly go in with the crowd in favour of the valiant knight's Shop Hours Bill. One point—and I think a necessary one—has not been touched upon by any correspondent, viz. the time of *opening*. Why not restrict the time of keeping open shop as from 8 A.M. to 8 P.M.? Many shops in our *quasi* profession-trade are open now at 7 A.M., others at various times from that hour to 8. The stick needs whittling at both ends. Then employers and assistants would get the full benefit of this beneficent legislation. Some correspondents appear to think that it is an evidence of cowardice in a tradesman who is wishing to close at an early hour, but refrains from doing so because one or two of his compeers do not. My opinion is that we need protecting against ourselves, and if some may possibly suffer somewhat in a pecuniary sense from a curtailment of hours, we shall gain under the new dispensation in health and strength, and be more fitted to go in and win in the battle of life. Let us all toe the scratch together, and run our daily heats fairly. One more point: let Sundays', Christmas Days', and Bank Holidays' *open* trade be totally debarred.

SPERO. 40/241.

Getting her Laudanum Cheap.

SIR,—I saw in last Saturday's number the case of a Frenchman going round and getting a bottle of wine on the cheap. Curiously enough a somewhat similar event took place here about three years ago. An English person, looking like a governess and speaking French, did the whole round of chemists in this part of town, and, handing a prescription with the forged signature of a medical man who did once live in Paris, but who had left it several years ago, asked for the laudanum to be given immediately, and the pills (which were composed of some preparation of steel) were to be sent round to some place where that person was perfectly unknown. She carried on this game for some time, until eventually one chemist had her brought up before the Commissaire de Police, where she paid for her prescription, and I suppose she afterwards went to some other part of the city.

Yours truly,

E. DE FRANCIOSI.

DISPENSING NOTES.

[*The opinion of practical readers is invited on subjects discussed under this heading.*]

QUERIES.

A subscriber to THE CHEMIST AND DRUGGIST received the following prescription on a quiet afternoon lately, and had a little diversion in deciphering it. He succeeded in the task, and now submits it as an curiosity. It was written on a very ragged piece of paper:—

A Pill Nuisance.

W. B., writing on October 26, says that the following prescription is a nuisance to make up when busy and time is limited:—

Pot. iodid.	..	..	..	..	..	gr. j.
Acid. salicylic.	..	..	..	..	..	grs. ij.
In pil. i.	Mitte	xxxvj.	(in argent).			

He continues:—"I should like to read the ideas of other s as to how they would do it; I added—

Ol. theobrom.	..	..	..	..	..	grs. xxxvj.
Vaseline ..	..	..	..	..	..	" ix.

worked up in warmed mortar, rolled out, smeared my palms

ry slightly with vaseline, and silvered; they answer very well thus. The slightest moisture seems fatal to them."

Vin. Ferri and Potass. Bicarb.

SIR.—The following prescription dispensed by me was sought back by the customer, who at the same time showed me the remains of a bottle dispensed in another town; the latter was perfectly clear, but the one sent by me contained a dirty-looking precipitate. Will you kindly say which is the correct way to send out such a mixture?

Yours truly,
J. A. (240/1.)

Vin. ferri B.P.	ʒ. vi.
Potass. bicarb.	3ijs.
Tr. nucis vom.	m̄lxv.

Misc. flat mist.

Cap. coch. min. duo e cy. vin. aq. ter die post cibos.

[If the wine of iron is properly made, it gives a precipitate carbonate of iron with the potash. A similar complaint that made to "J. A." was thoroughly investigated, and it was found that the wine of iron which had been used to make a clear mixture contained only a trace of iron.]

23/240. X. Y. Z. asks what is the most expeditious way to take 10-gallon quantities of aq. chloroformi. Do our readers know of any better way than adding the chloroform to the water and shaking for five minutes? We have always succeeded that way.

22/236. Syrup.—Granulated sugar is the best for syrup making. Boil the syrup for three minutes after the sugar is dissolved, and you will find it to be quite clear. Subsequent crystallisation of the sugar shows that the syrup is per-saturated, and you may use either less sugar or more water.

Croton Oil Pills.

SIR.—I got the following recipe to dispense:—

Ol. croton..	gtt. v.
Conf. rose	q.s.
Ft. pil. iv.	

melted 5 grains of cera flav. in a mortar and added the oil; mixed and added 2 grains of conf. rose, and massed with p. glycyrrhiz. Was I justified in using the wax? It made a fair mass. Can you recommend anything better?

CRUCIBLE.

[A much better pill is made by rubbing up the oil with an equal weight of soap, and making into a mass with pulv. agac. co.]

REPLIES.

I dispensed "Enquirer's" explosive mixture a week ago, but to this time it has shown no signs of bursting, although I rather encouraged it to do so by placing it near the stove. Perhaps "Enquirer" might repeat the experiment, and port.

A. T. (240/18.)

Quinine Mixtures.

"Heder" should look to his drugs. There is no difficulty in dispensing his mixture as a solution, which would be perfectly clear but for the slight turbidity caused by the s. aurant.

W. G. B.

SIR.—I cannot understand what difficulty "Heder" experiences with his mixture, as I have made it up by dissolving the quinine and adding the liquids, and also by shaking up the quinine with the liq. ammon. acet., syr. aurant., and water, and dissolving it by means of the acid last, and have in both cases had a perfectly clear mixture.

Yours truly,

H. W. PERKS.

An Ethereal Mixture.

I should have used aeth. sulph. as ordered, and aq. chloroform. ʒ. vi. I see no reason for assuming that the dispenser

meant sp. aether. sulph., as 30 minimis of sulphuric ether is only a moderate dose. I should not have hesitated to construe ʒ. vi. into ʒ. vi. Medical men are only mortal, and *humanum est errare*. I had some pills to dispense the other day, and was directed to label them "Two pills to be taken twice a day at bedtime." I assumed that the patient only wanted to be once a day, so substituted *week* for *day*.

W. G. B.

Lin. Petrolei (asked about last week) is a speciality prepared by Messrs. Coupland & Son, of Harrogate. It is said to be quite different from ol. declinæ. We have received answers on this subject from Messrs. Coupland (Harrogate), J. H. C. (Wakefield), and G. J. Coombs (Deal).

Viscous Mixtures.

SIR.—In answer to the query by "Nemo" in your Journal of June 12, I beg to state that I had a similar case about a year ago. The prescription contained syr. pap. alb. and syr. scille only, and was brought back in about a week's time. I found it just as "Nemo" described—ropy and of a pink colour. I made some fresh syr. pap. alb., and found on using that the mixture kept all right.

I have had the same thing occur frequently with Fellows's syrup of the hypophosphites, viz.:—

Syr. hypophos. (Fellows)	ʒ.
Aqua ad	ʒviiij.

Sig. ʒss. ter die.

The addition of a little glycerine made it keep all right. Oamaru, New Zealand. STUDENT. (231/47.)

Information Wanted.

[Replies to the following requests are solicited by Correspondents of THE CHEMIST AND DRUGGIST.]

11/229. Powdered yellow soap. Who supplies?

38/229. Cooper's Fluid Dog Soap. Maker or agent.

17/53. Recipe for cyclostyle ink.

73/228. Recipe for seidlitz powder (containing sugar and lemon) which will not cake.

65/223. Composition of the flexible plates inserted in magnetic belts.

35/233. Maker of vials packed in 1-gross boxes.

74/234. Coralline eye-shades, maker wanted.

27/241. E. H. S.—Formula for Tilbury Fox's nux vomica hair-wash.

[In cases where makers of special products are asked for, replies should be addressed to the editor with the quoted number marked on the reply (not on the envelope). Information obtained in this way is forwarded to the inquirer.]

UNANSWERED NOTES AND QUERIES.

To "Apprentice" (71/227) we must decline to give an opinion as to specific teachers of pharmacy beyond saying that all whom we know are very clever.—Mr. J. E. Brown's question is of an engineering nature and is outside our range. If the Morgan Crucible Company cannot help him, Messrs. Fellows & Bate, of Manchester, or Hayward Tyler & Co., of London, might do so.—"Apprentice" (57/227), who asks about coloured fires, does not send his name, which is one reason for not answering him, while another is that the preparation of such compounds is illegal on any premises not licensed by H. M. Inspector of Explosives, who has stated that chemists' shops never would be so licensed.—The personnel of firms asked about by "Query" (64/228) is hardly a suitable subject for discussion.—"G. W." (59/224) makes an evidently sarcastic reference to some one who probably deserves an exposure, but who must be left alone till we know more about him.—"Alfred" (46/231), who wants to know what sort of a post could he occupy after eighteen months' study in a laboratory, asks a question which it is impossible to answer. He may turn out clever and hit on a good chance which will lead him on to fortune, or he may have to take a situation in an analyst's laboratory at 40*l.* a year.

Bill would like some one to give him information about the drug trade on the west coast of South America, and what qualifications are necessary.

Warner's Safe Cure.—Samuel R. Williams, Plymouth, calls attention to a paragraph in Messrs. Warner's pamphlet in which they caution their customers against chemists who may try to sell them a preparation of their own which is just as good. Mr. Williams asks chemists to ponder that paragraph before they distribute the Warner pamphlet.

35/233. Lancastrian.—Tic and Neuralgia Mixture.—Quinine is the sheet-anchor in neuralgic treatment, especially in cases where the pain recurs at regular intervals—five grains three times a day, or one grain or more every hour. In some cases ammon. mur. in 30-grain doses every four hours answers well. But perhaps iron and nux vomica is the best general remedy and preventive for persons subject to tic. Fifteen drops of tinct. ferri perchlor. and five drops of tincture of nux vomica for a dose, in water, three times a day, after meals, is often useful. Aperient medicine should always be given as well. A good article on this subject will be found in "Cassell's Family Physician."

16/234. A. D.—You must get a physician to advise you which colony has the best climate for you. If you have read our correspondence from Australia you will have ascertained that there are fairly good chances for chemists' assistants, but your certificate of having passed the Preliminary examination will avail you nothing. You would have to pass the colonial examination before you could set up in business. The British Minor examination certificate would pass you anywhere in Australia.

Subscriber wants a formula for "a thoroughly satisfactory, effectual, and cheap cough linctus, mixture, or compound suitable for pushing as a proprietary." We subjoin two formulæ. The first is for a linctus for children, quoted from the Pharmacopœia of the North-Eastern Hospital for Children. The dose (as given) is calculated for a child of about a year old :—

Paregoric	2½ minimis
Ipeeaquanha wine	2½ "
Treacle	20 "
Peppermint water, to	1 fl. drachm

For adults, the following is perhaps as good as you can have :—

Tincture of tolu	2 drachms
Paregoric	1 oz.
Concentrated solution of liquorice ..	2 "

Bancroft's Desiccated Meat.—Messrs. Thos. Christy & Co., referring to the paragraph under this heading in our last issue, say they are, and have been for the past six or seven years, sole agents for Dr. Bancroft's desiccated meat; that they at the present moment have a stock of some cwt.s. of it; and that it will be found quoted in their lists under the name of "Pemmican."

Syrup of Foxes' Lungs.—*Chocolate* (32/237) lived in the Eastern Counties for some years, and sold gallons of so-called Syrup of Foxes' Lungs, but always gave syrupus rhacados for it. It was generally mixed with tinct. camph. co. and sold as "Paregoric and Foxes' Lungs."

Cure for Drunkenness.

SIR,—This prescription, on p. 564, is one I have often prepared. It is recommended in a pamphlet written by Rev. J. Vine Hall, author of "The Sinner's Friend," and father of Rev. Newman Hall. I have copied it from the printed form; it is the same as you have printed with the exception of the peppermint water, which in the book is 11 drachms.

Yours truly,

G. L. NAPIER.

[We take the following from the tract published by

Drummond, of Stirling, for which we are indebted to Mr. Napier:—"A physician was consulted as to the possibility of medicine being rendered effectual to stop the disposition of intemperance, and he pledged his credit, that if his prescription was punctually followed the happiest results would ensue. The remedy was as follows:—Sulphate of iron, 5 grains; magnesia, 10 grains; peppermint water, 11 drachms; spirit of nutmeg, 1 drachm. This forms one draught; two draughts to be taken each day."]

25/234. C. Haigh.—Our DIARY, which will be delivered to subscribers next month, will contain articles on the subject.

Varnish.—Apply to any of the printers who advertise in this Journal about the cards.

Starch Gloss.—Powdered borax alone to be added to the starch is usually sold in packets for starch gloss.

Sub Umbrā Floresco labels his castor-oil:—

Doses: Children from 3 to 7 years, two teaspoonfuls
" " 7 to 14 " one tablespoonful.

A physician says, "these doses, especially the latter, are far too free." What is your opinion as to the doses which should be administered? [The doses quoted are, as the physician says, free. As a rule, we should say, it would be better to give half the doses named, and repeat in four hours if necessary.]

Chemists' Retail Labels—A Hint for Beginners.

One of the best methods of keeping slip labels of the ordinary size neat and clean is the following, which, as far as I know, originated with Messrs. Clay & Abraham, of Liverpool. Each packet of 100 labels is put into a slide powder-box (the half-dozen size), and the boxes are ranged on their sides in a shallow drawer. I have a drawer measuring 21 in. by 16 in., containing 138 different slips. Under the old plan of division into open compartments, this drawer would hold only 84 kinds. No labels are now lost by accidental soiling, and no time is lost in sorting out after the occasional mixing up.

HEDER.

From our Letter Basket.

SIR,—I have been a subscriber to THE CHEMIST AND DRUGGIST for the past fourteen years. My investments during that period have been good, bad, and indifferent, but the best and most profitable one has been the amount devoted to your periodical. The new departure is an incalculable boon, and any subscriber who is dissatisfied with it now must be very hard to please.

GRATUS.

22/232. J. B.—Emery Wheels are made from emery powder mixed with a quarter its weight of Stourbridge loam and water to a paste, which is moulded under powerful pressure. The wheels when dry are exposed in a muffle furnace at white heat for a short time.

32/224. Country Chemist.—Major Studies.—It is a difficult matter working for the Major while you are in the full swing of business, as you express it, and if the business is your own and is prospering, it would be a pity to do anything to stop your prosperity. A run up to London for a day per fortnight to study under a "coach" would be useless, and a waste of time. Get the following books and map out for yourself a course of reading:—"Pharmacographia," Bentley's "Botany" (the whole of the first and third books, and the part of the second required), Roscoe's "Chemistry," 4s. 6d. (the whole book), and Balfour Stewart's "Physics" (Macmillan, 4s. 6d.). As you read, practically apply the more important tests for Pharmacopœial chemicals and drugs; in this Attfield's or Muter's "Chemistry" will assist you. Do as much plain testing as

time will permit: first simple salts, then mixtures and solutions. Join the little band of workers in our Corner for Students, so that you may form an idea of how you are progressing; but you will find that most of your time is taken up with reading the books which we have named. Postal instruction would help to keep you in the lines, but there is much work to do besides what would be appointed to you by correspondence. After a year's study you may be fit for a short course of work under a tutor. Especially would you require three or four hours' work daily in a well-appointed laboratory. What should be aimed at in Major work is to do it thoroughly; the examination is optional and the title honorary, so that the greatest satisfaction is in acquiring the knowledge which makes a man a superior pharmacist.

54/199. *H. P.* asks: Am I right in thinking that the upper sinister quartering in the arms of the Pharmaceutical Society is a scorpion's head, and the one below it an alembic? The following is the description of the diploma which was originally given: the Society has no heraldic arms:—In the centre is a shield, which is supported on the left by an imaginary portrait of Avicenna, who represents pharmacy in Arabia in the earliest ages of antiquity. He holds in his hand the staff of Esculapius, emblematic of the healing art, with which he points to a wreath of medicinal plants which indicate botany and *materia medica*. Among the plants are the poppy, digitalis, belladonna, hyoscyamus, taraxacum, roses, rhubarb, senna, scammony, jalap, acacia, camphora officinarum, pine, &c. On the right is an imaginary portrait of Galen, holding an antique balance, signifying "prescriptions accurately dispensed." In the centre of the pedestal is an alchymist at work, signifying philosophical research. . . . The mortar, &c., at the top represents pharmacy and connects the man who pounds with *shillings* and *pence*. No such joke as this latter one has since been perpetrated in the supreme quarters of pharmacy.

20/54. *M. Wilks*.—Agar-Agar is Japanese isinglass, prepared from various species of seaweed, *Gelidium corneum* being that most used.

The term Chinese Cement is used indifferently for shellac cement and isinglass or gelatine cements. Is it Jackson's Chinese cement that you wish?

39/67. *J. M.*—Liquor Tolutanus, 1 to 4.

	Oz.					
Tolu balsam	2
Rectified spirit	2
Dissolve with the aid of heat, and strain into						
Kaolin	2
Water	5

Shake well and filter, washing the filter with enough water to make 7 oz, 1 drachm 45 minims.

Brown Dye for Baskets.—The clear solution which you refer to is the mordant, which is simply a solution of alum. A bath of this is first used, then one of decoction of madder. If acetate of iron is added to the mordant an amaranth tint is obtained.

51/239. *Tyro*.—Syrupus Tolutanus.—The note in the DIARY for 1886 does not mean that the liquor is not to be filtered; it should be, while hot, then again brought to the boiling point, and the sugar added.

Tinctura Nucis Vomiaeæ.—The extract is not wholly soluble in the dilute spirit, as you have experienced. It is quite a common matter to find that spirituous extracts are partially insoluble in the same menstruum with which they have been prepared. A change appears to occur during evaporation. For this reason it would be much better that the tincture were made direct from the seed and standardised.

9/238. *J. W.*—The American circular was printed in our issue of October, 1884.

60/237. *Subscriber*.—Milk Analysis.—You cannot do better than get Wanklyn's book (*Trübner, 5s.*). The methods given therein are reliable.

25/241. *Minor*.—An "unqualified druggist" cannot legally exist. If unqualified he may not call himself a "druggist." No unqualified person may sell by retail, nor dispense in a prescription, any poison named either in part 1 or 2 of the schedule.

26/53. *L.*—Infants' Food.—The following is one of the expired patent processes for the manufacture of infants' and invalids' foods. The finest wheat flour is cooked in a closed cylindrical vessel, which, however, is provided with outlets for the escape of gases evolved during the process. This vessel is surrounded by water, which is kept at boiling temperature for six or eight hours. When the food is properly cooked it is rolled, pounded, and sifted, and to every pound of the flour $\frac{1}{4}$ oz. bicarbonate of soda and $\frac{1}{2}$ oz. sugar are added. The alkali appears to be in excessive quantity.

13/233. *Atramentum*.—For Blue-black Ink we cannot give you a better formula than the one printed last week on page 566. For Scarlet Ink which will not corrode steel pens use a solution of *cocaine*, diluting to the required shade, and adding about 2 drachms of mucilage to 8 oz. of fluid, and a few drops of earbolic acid to keep it.

Cucumber Cream.

SIR,—Many thanks for your reply to my note with suggestions for cucumber cream. I now find that the original recipe is perfectly correct and works very well; the only precaution necessary to ensure success when adding the cucumber ointment to the soap dissolved in 2 oz. of water, is to take care that the ingredients, as well as the mortar, are *very hot*, and very well incorporated before adding the remainder of the water, which also must be done slowly. When this is done a beautiful cream is formed.

Yours truly,

S. P.:

43/238. *Black Ink*.—Indigo Carmine is a derivation of ordinary indigo, and like that pigment gives an intense blue solution. It is soluble in water without addition of acid.

Tooth Stopping.—There is nothing better than white gutta-percha carefully packed into the cavity.

35/238. *J. W.*—Soluble Essences.—The tinctures must be diluted with water. Have you done this before adding alkali? Another method for rendering the essences soluble is to add about 10 grains of alum to each pint of the diluted tincture, then add solution of potash, a few drops at a time, with constant shaking until the whole of the alum is precipitated as hydrate. Then add $\frac{1}{2}$ oz. of kaolin, and allow to stand for a few days before filtering.

7/244. "Yorkshire Bill."—Hydrofluoric acid is used for writing on glass, or a mixture of powdered fluor-spar and sulphuric acid may be used. For other matter see next DIARY.

10/241. *Menthol*.—Graph composition is made of Russian glue 2, water $1\frac{1}{2}$, and glycerine 5, all by weight. Soak the glue in the water, add the glycerine, and dissolve by heat.

DR. LINCK'S GENUINE MALT EXTRACT,

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Prepared by M. KOCH & CO., Successors to Dr. Linck & Co., Stuttgart, Germany. (Established 1864.)
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It is warmly and solely recommended by Professor Leube. See "Sammlung Clinischer Vorträge" of R. Volkmann, in Dr. Wiel's "Tisch für Magenkränke," and in Professor Reclam's "Gesundheit" (Zeitschrift für Hygiene), No. 14, vii., 1882, under the title "Newest Nourishments." Professor Reclam also has had great success with it in cases of debility of persons of all ages. This Preparation has been for some time, and is still, in use at the German Hospital, Dalston.

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This **DRY** Extract does not ferment, turn sour, or become mouldy, as is so frequently the case with liquid and soft preparations of Malt, and is therefore especially adapted for use in Hot Climates and for Exportation generally.

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USES.—INTERNALLY: In Dyspepsia and Gastralgia. Geo. Herschel, M.D. Lond., writes in the *British Medical Journal*, April 3rd, 1886:—"I find it chiefly valuable in (1) the Chronic Stomach Catarrhs of Children, (2) Acid Dyspepsia, and (3) Severe Gastric Pain coming on shortly after eating."

EXTERNALLY: It has been used by *Bouchut* in *cutaneous carcinoma*, *Rosshack* for dissolving the false membranes of *Diphtheria* (see *Zeitsch. für Klin. Med.* vi II. 6), by *Jacoby* of New York for the same purpose, and recently Prof. Finkler himself has restored patency to an oesophagus occluded by *carcinoma* by the continuous administration of a solution.

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$\frac{1}{4}$ Pint, 1/-;

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1 Pint,

3/6;

Quart, 6/6.

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Per
Original Cask,
4/6 per gallon.
In Winchesters,
per doz., at
6/- per gallon.
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**IMPROVED HIGH TEST
 BICARBONATE OF SODA,
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Containing 99 per cent. of Bicarbonate of Soda.

**CRYSTAL CARBONATE
 The Best Preventative of Boiler Incrustation, and the **PUREST**
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One Ton of Crystal Carbonate contains as much Alkali as 48 cwt.
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CRYSTAL CARBONATE,
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£5 1s. 6d.

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EVANS' FLUID EXTRACTS.

1 OZ. = 1 OZ. OF THE DRUG.

These are prepared by elaborate processes, with the menstruum most suited to each individual drug: in odour and taste they well represent the crude drug, and in strength they contain the whole of the active medicinal properties.

Infusions, decoctions, tinctures, wines, and syrups can be at once obtained from these fluid extracts, by simply mixing one minim for every grain of the drug ordered. This is perhaps the most perfect method of making such preparations of an accurate strength.

They are put up in actinic glass bottles of 5, 10, and 20 fluid ounces, capsuled, with a large gold front label: a special feature, to assist in dispensing, is the back label, containing full scientific names, botanical origin, description, medical properties, dose, strength, active ingredients, &c., &c.

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CHLORATE OF POTASH PELLETS,
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2/- or post free 2/4.

BEST
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Potassium

Pellets.

Most attractively
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Numerous
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Absolutely pure.
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Capsules.

1 doz. handsome circular boxes
COPAIBA CAPSULES,
30 in each, 7/6 per doz.

Loose, 10/6 per 1,000.

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24 in each,

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BICARBONATE OF SODA, REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda	...	...	...	...	...	96.81
Mono Carbonate of Soda	...	...	...	...	...	2.44
Sulphate of Soda	trace
Chloride of Sodium035
Chloride of Magnesia	
Moisture82
Insoluble	nil

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ANTISEPTIC DRESSING,

One of the most Reliable Antiseptic Agents for application to Wounds, recent or otherwise, in the Market.

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COMPOUND ANESTHETIC ETHER,
For producing Local Anesthesia.

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CHARCOAL CAPSULES,

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*The most efficacious antacid and mild aperient for Delicate Constitutions, Ladies, Children, and Infants.*DINNEFORD & CO.,
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VOID CAPSULED PILLS.

(Of the British Pharmacopœia and other Standard Authorities.)

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	DOZ. BOTTLES		PILLS.		DOZ. BOTTLES			
	containing		containing		containing			
	25	100	PILLS	PILLS	25	100		
Aconitine Crystals (Duquesnel's)	1-500 gr.	7 0	24 0	Hydrastine (White Alkaloid)	1-2 gr.	20 6	79 0	
	1-200 gr.	7 0	24 0	Iodoform	.1 gr.	9 0	32 0	
Aloes Barb. B.P.	5 gr.	5 0	16 0	and Iron	.....	11 0	39 6
" Dilute (Hall's Dinner)	5 gr.	5 0	16 0	Ipecac, Powdered	.14 gr.	5 0	16 0	
" Socotrine, B.P.	5 gr.	5 0	16 0	.....	.5 gr.	5 0	16 0
" and Asafoetida, B.P.	5 gr.	5 0	16 0	"" Comp. (Ipecac and Opium)	.5 gr.	9 0	32 0	
" and Irou, B.P.	5 gr.	5 0	16 0	.....	.5 gr.	5 0	16 0
" and Myrrh, B.P.	3 gr.	5 6	18 0	Iron, Asenate	.18 gr.	5 6	18 0	
" Nux Vomica	.6 gr.	6 0	20 0	.....	.5 gr.	5 6	18 0
Aloin	1-10 gr.	6 0	20 0	Carbone, B.P.	.....	5 0	16 0
"	1-4 gr.	6 0	20 0	by Hydrogen (Quevenne's)	.1 gr.	7 0	24 0	
"	1-2 gr.	7 0	24 0	Iodide (Blancard's Formula)	.....	10 0	35 6
" Compound	.1 gr.	11 0	39 6	.....	1 gr.	5 6	18 0
" and Strychnine	7 0	24 0	Quinine, and Strychnine	.....	13 6	49 6	
" and Belladonna	7 0	24 0	Laxative Vegetable (Improved Cath.)	.....	5 6	18 0	
Anti-Cholera	.2 gr.	7 0	24 0	Manganese, Bio-oxide	.2 gr.	9 0	32 0	
Anti-Dyspepsia (Fothergill's)	7 0	24 0	Mercury, Bin-Iodide	.1-16 gr.	5 0	16 0		
Aphrodisiac	1-50 gr.	16 0	.....	.....	5 0	16 0	
Arsenious Acid	1-20 gr.	5 0	16 0	Proto-Iodide	.1-8 gr.	5 0	16 0	
Asafoetida, U.S.	5 0	16 0	Morphine, Muriate	.....	1-4 gr.	5 0	16 0
Compound, B.P.	.5 gr.	5 0	16 0	.....	.8 gr.	7 0	24 0
Atropine	1-300 gr.	7 0	24 0	Narcotic Extracts (Brown-Squard)	.....	15 0	55 6
Blue Mass, B.P.	1-100 gr.	7 0	24 0	Nitro-Glycerin	1-100 gr.	7 0	24 0	
" "	1 gr.	5 0	16 0	Opium, Powdered	1-50 gr.	7 0	24 0
" "	2 gr.	5 0	16 0	.....	.1 gr.	7 0	24 0
" "	3 gr.	5 0	16 0	.....	.5 gr.	7 0	24 0
" "	.5 gr.	5 6	18 0	.....	5 gr.	7 0	24 0
Colocynth and Hyoscy.	9 0	32 0	Pepsin, Pure Concentrated	.....	1-100 gr.	9 0	32 0
Calcium Sulphide	1-10 gr.	6 0	20 0	Phosphorus	1-100 gr.	6 0	20 0
" "	1-4 gr.	6 0	20 0	.....	.150 gr.	6 0	20 0
" "	1-2 gr.	6 0	20 0	.....	.130 gr.	6 0	20 0
" "	.1 gr.	6 0	20 0	.....	.....	8 0	28 0
Calomel, Colocynth, and Hyoscyamus	9 0	32 0	.....	.....	.....	17 0	63 6
Comp. B.P.	.5 gr.	5 6	18 0	.....	.....	7 0	24 0
" and Opium	7 6	26 0	.....	.....	.....	8 0	28 0
Camphor and Hyoscyamus	5 6	18 0	.....	.....	.....	17 0	63 6
Mono-Bromated	.2 gr.	11 0	39 6	.....	.....	17 0	63 6
Cannabis Indica Extract	1-4 gr.	7 0	24 0	.....	.....	11 0	39 6
Cascara Sagrada Extract	1-2 gr.	9 0	32 0	Picrotoxin	1-80 gr.	7 0	24 0
Cathartic Compound U.S.P.	.3 gr.	7 0	24 0	Podophyllin	1-8 gr.	5 0	16 0
Codeine	5 6	18 0	.....	.....	.....	5 0	16 0
Colocynth Comp. B.P.	1-2 gr.	20 6	79 0	.....	1-4 gr.	5 0	16 0
" " and Blue Mass	.4 gr.	8 0	28 0	.....	1-2 gr.	5 6	18 0
" " and Calomel	.5 gr.	9 0	32 0	.....	.....	8 0	28 0
" " and Hyoscy. B.P.	.5 gr.	9 0	32 0	.....	1-2 gr.	5 0	16 0
Extract, B.P.	.5 gr.	9 0	32 0	.....	.....	5 0	16 0
Conium Compound, B.P.	.5 gr.	5 0	16 0	.....	1-4 gr.	5 0	16 0
Copaiba Compound	5 6	18 0	.....	.....	1-2 gr.	5 0	16 0
" and Oleo-Resin Cubeb	.5 gr.	11 0	39 6	.....	.....	5 0	16 0
Corrosive Sublimate	1-30 gr.	5 0	16 0	.....	1-4 gr.	5 0	16 0
" "	1-20 gr.	5 0	16 0	.....	2 gr.	8 0	28 0
Croton Chloral	1-10 gr.	5 0	16 0	.....	3 gr.	10 6	38 0
" "	.1 gr.	10 0	36 0	.....	4 gr.	13 0	48 0
Cubeb, Oleo-Resin, with Soda	.2 gr.	17 0	63 6	.....	5 gr.	16 0	60 0
Digitalin	1-60 gr.	7 0	24 0	Sulphate	1-4 gr.	5 0	16 0
Elaterner	1-20 gr.	13 0	47 6	.....	1-2 gr.	5 0	16 0
Emmenagogue (Mutter's)	5 6	18 0	.....	.....	1 gr.	5 6	18 0
Ergotin	.3 gr.	16 6	63 0	.....	2 gr.	8 0	28 0
Euonymin	.2 gr.	16 0	59 0	.....	3 gr.	11 0	40 0
" Compound	.3 gr.	20 6	79 0	.....	4 gr.	14 0	52 0
Ferruginous (Bland's)	.3 gr.	16 0	59 0	.....	5 gr.	17 0	64 0
" "	.5 gr.	7 0	24 0	.....	Comp. (Anti-malarial)	15 0	55 6
				Rhubarb Comp. B.P.	.....	7 0	24 0
				" and Blue Mass	.....	7 0	24 0
				Salicylic Acid	.....	7 0	24 0
				" Comp.	.....	7 0	24 0
				Soap Comp., B.P.	5 gr.	11 0	39 6
				Squill Comp., B.P.	8 0	29 0	
				Strychnine	5 6	18 0	
				Zinc. Phosphide	5 0	16 0	
				" Valerianate	7 0	24 0	
					9 0	32 0	
					8 6	30 0	

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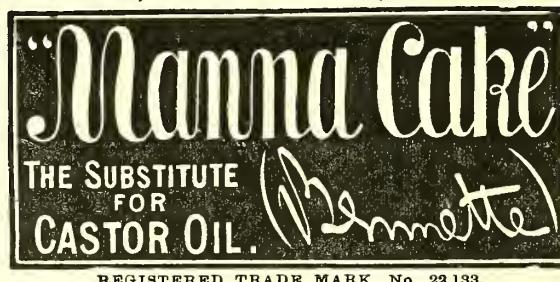
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RECOMMENDED BY THE FACULTY.

Milder than Castor Oil, certain, efficacious, and most agreeable. A first-class Family Medicine for household, and especially appropriate for adults; "children take it readily and do not suspect its properties." Admirably adapted for women at all times, and during the whole course of pregnancy. Does not gripe, and leaves no bad effect as Castor Oil does. A digestive tablet and sweet to the taste.

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THE SALE IS
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IT HAS A MOST
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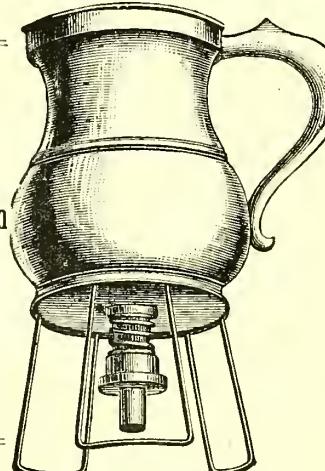
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HOW TO AVOID DAMAGE! DANGER!! DIRT!!!

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Maud's Patent Self-Acting Measure & Funnel.



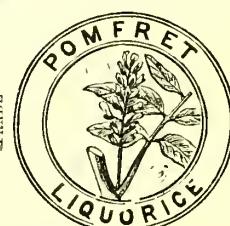
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It can be
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WORM CAKES.

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The above preparation for Children, made to sell at One Penny each, is the most perfect article of its kind offered. Children eat them with the greatest avidity, and their success is unfailing. Each cake is enclosed in a small parchment envelope, with full directions. Put up in neat Counter Boxes containing 3 dozen cakes each.

Price, 6/- per gross.

In quantities of 10 gross own name attached without extra charge.

Samples sent free on application.

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SIR JAMES MURRAY'S **PURE FLUID MAGNESIA.**

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of

ACIDITY INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly Double the quantity usually sold at that price), at **1/**, **2/6**, and **3/6** each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

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Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, **1/** and **2/** each.

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Glass Bottles of every description, either Plain or Stoppered, made in White, Blue, Amber, Actinic Green, or any other colour required. Screw Nickel Capped Pomades, Honey Pots, Jelly Jars, &c., &c.



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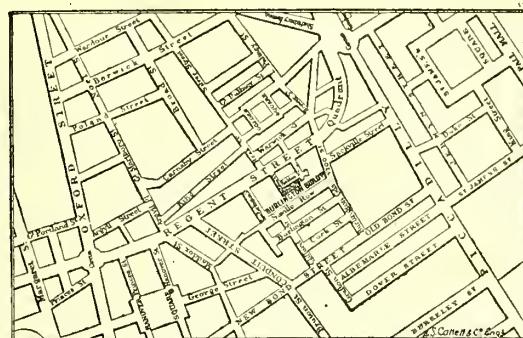
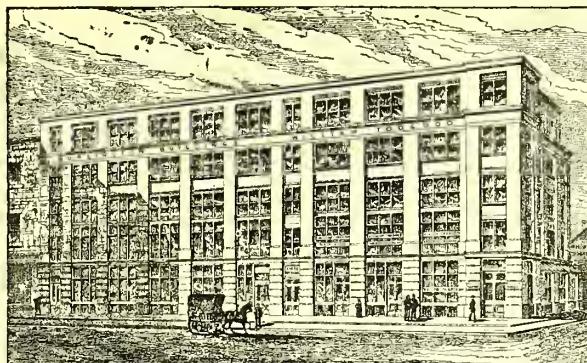
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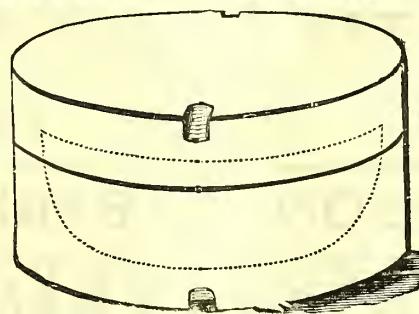
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Are claimed to be the most perfect and convenient yet offered to the Trade, and possess the following Advantages:—

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18/-	18/-	18/-	20/-	22/-	24/-
2	3	4	6	8	oz.
27/-	34/-	42/-	54/-	66/-	

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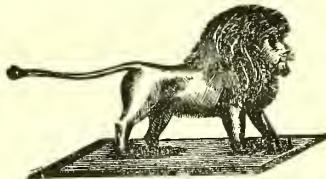
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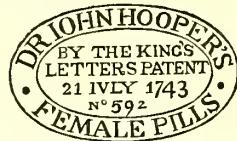
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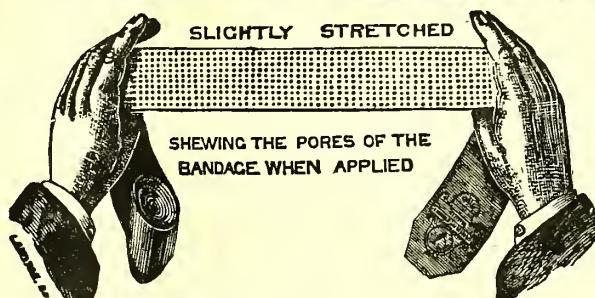
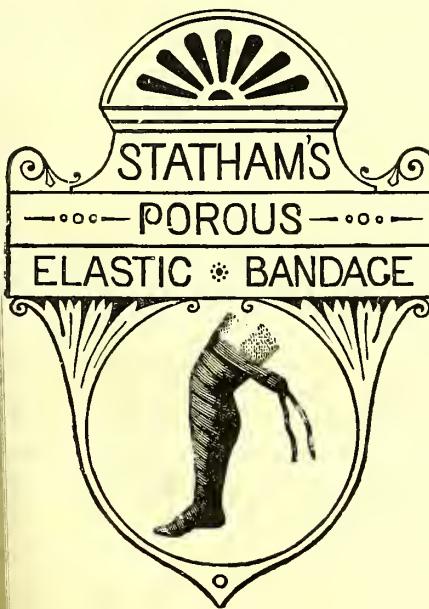
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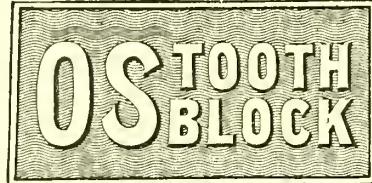
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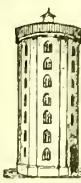
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For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

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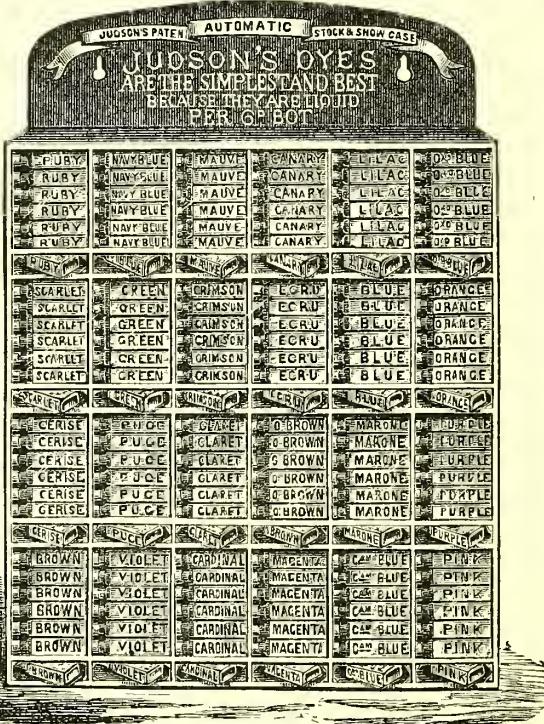
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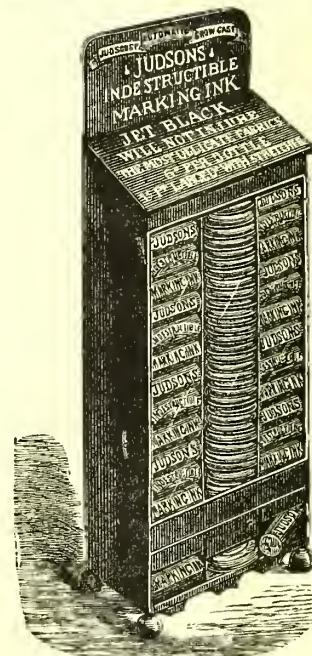
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CASE WITH CONTENTS COMPLETE,

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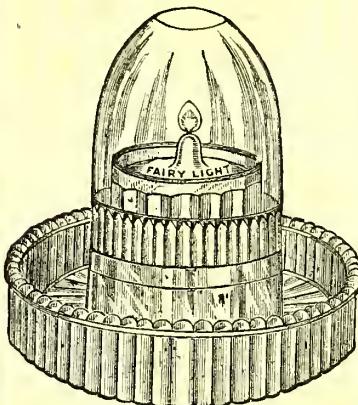
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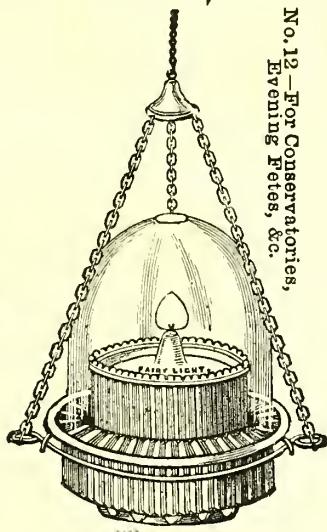
PRICES ON APPLICATION.



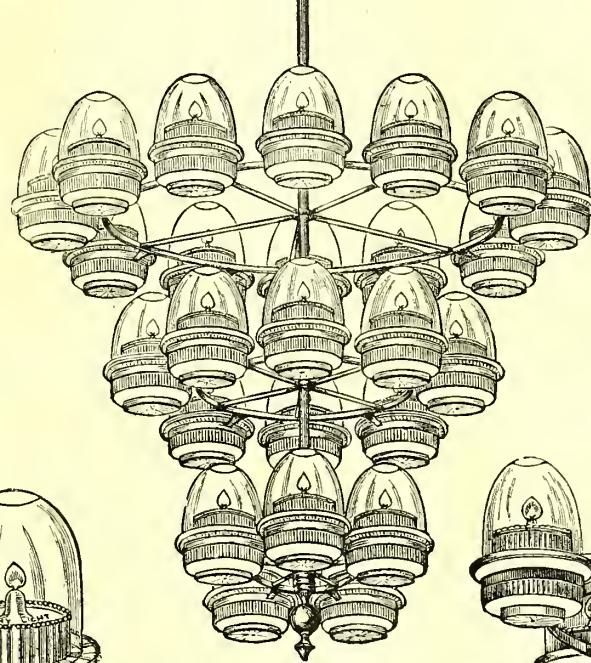
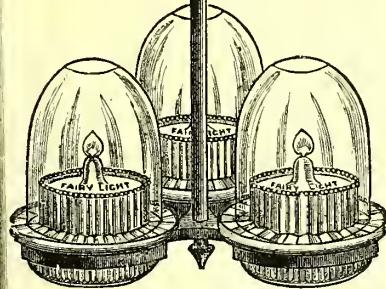
"FAIRY" LIGHT.



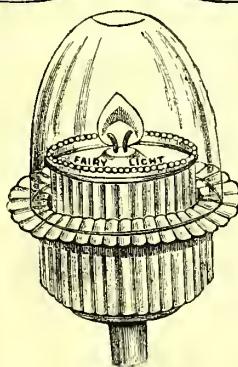
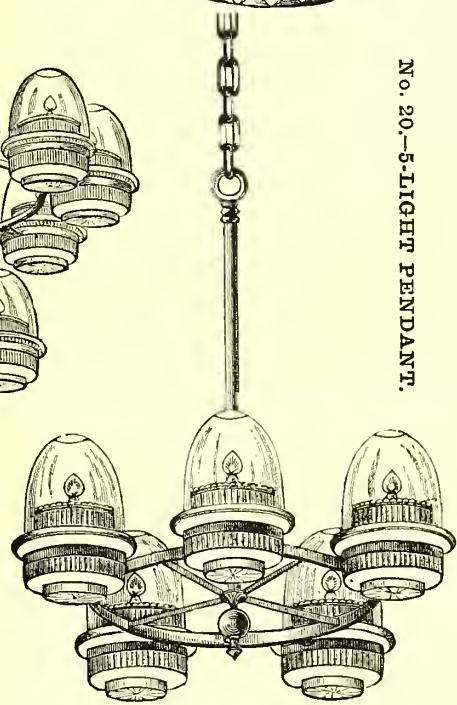
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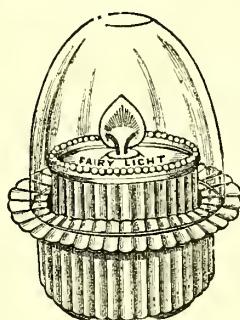
No. 22.
25-LIGHT CHANDELIER.

No. 20.—5-LIGHT PENDANT.



No. 14.

N.B. See [that the]
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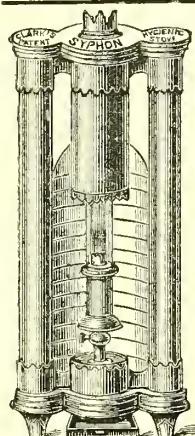
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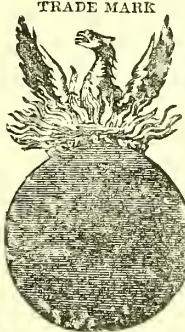
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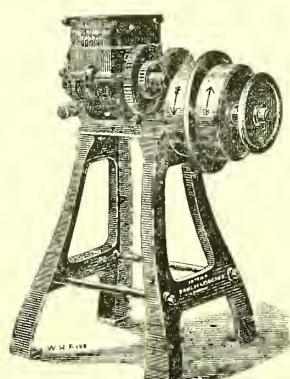
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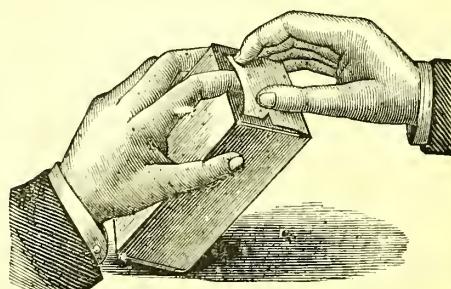
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BRACHER'S PATENT

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GENTLEMEN.—Having for the past ten years been engaged in mixing quantities of Powders, I have been on the look-out for a machine to do the work, but have been disappointed on three occasions. Yours is the only one I know of that combines the three operations of Crusher, Sifter, and Mixer, and is free from the wedging, so troublesome in other machines. After six months' trial, mixing nearly 1 cwt. per week, the apparatus is as good as new, and anyone who can turn a handle may be trusted to mix powders, as it is impossible to turn out lumpy and unmixed material with Bracher's machine.

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Yours, &c. (signed), ALFRED JONES.

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DEAR SIRS.—The Patent "Desideratum" we had from you 3 mo., 25/85, answers our purpose.

We are, dear sirs, yours respectfully,

MESSRS. BRACHER & CO.

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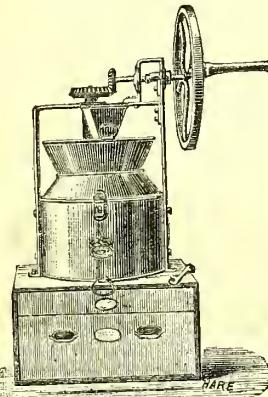
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GENTLEMEN.—I think it only fair to tell you that I am delighted with the "Desideratum" Mixer you supplied me with last summer. I mix Custard Powders, Tooth Powders, Violet Powders, as well as the Crown Veterinary Powders, for all of which purposes it answers admirably. Wishing you the success you deserve,

I am, Gentleman, yours very truly,

JOHN GRINSTED.

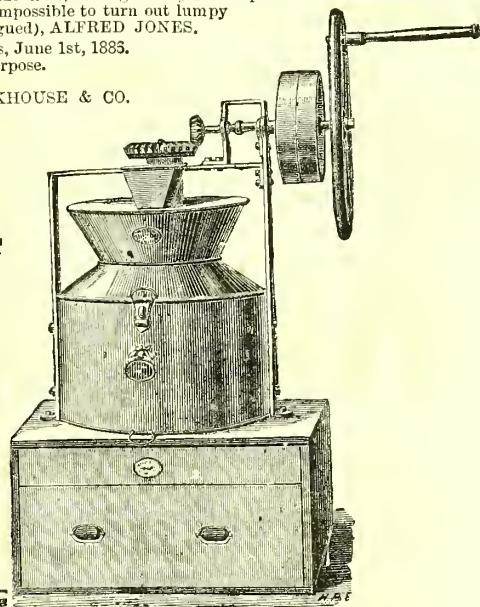
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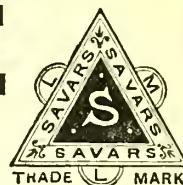
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SPECIAL NOTICE TO THE TRADE.



As the Winter Season is now approaching, the undersigned beg to call the particular attention of the Trade to the **SPECIAL PRICE LIST** of

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